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THE NATIONAL GEOGRAPHIC MAGAZINE

DECEMBER, 1911

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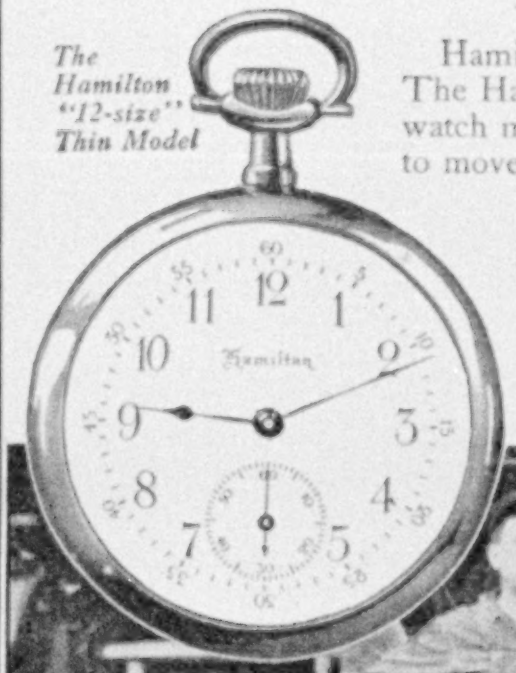

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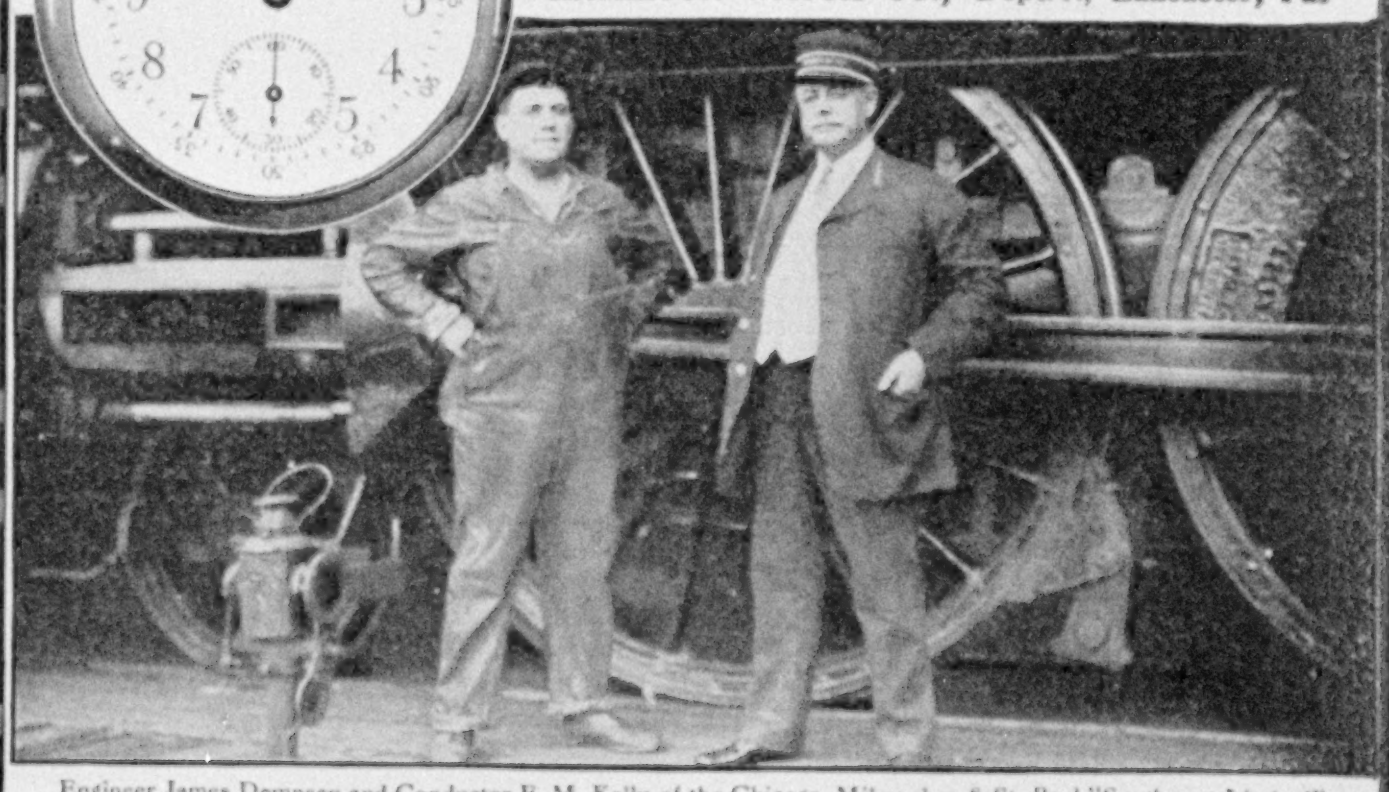

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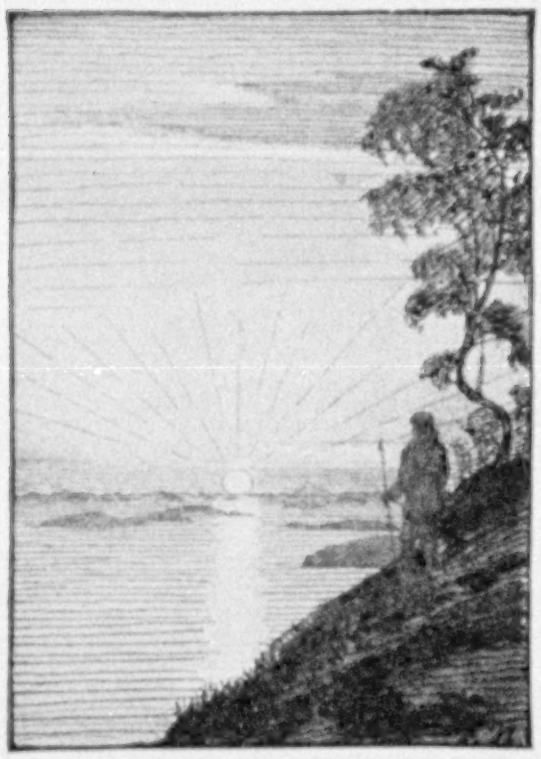

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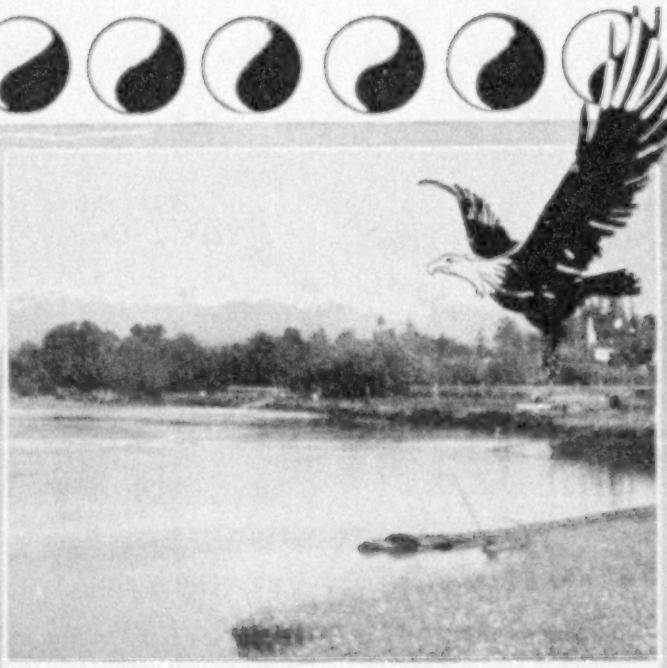

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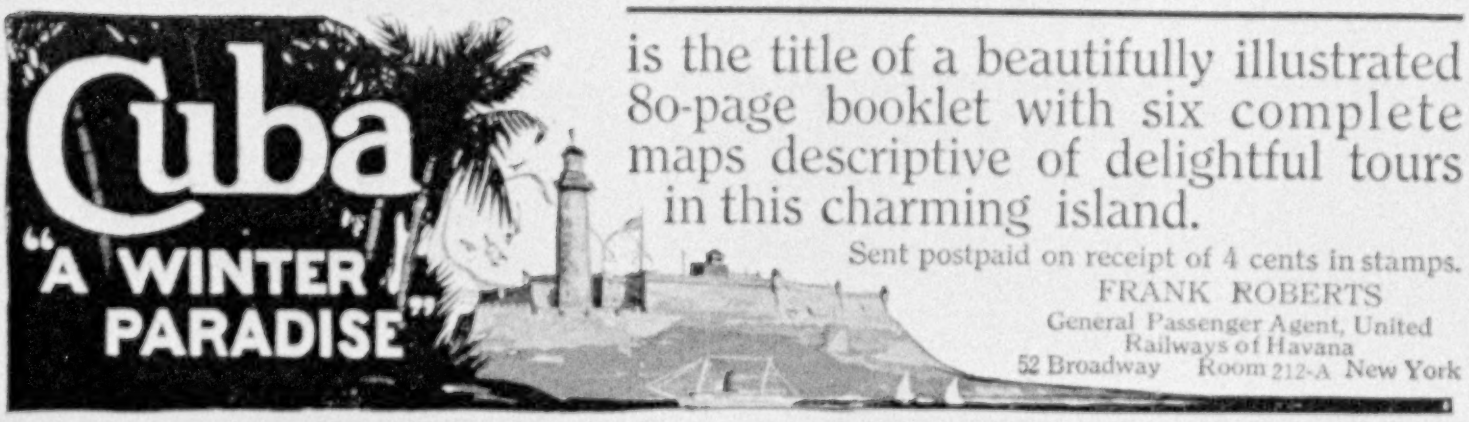

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BY FRANK EDWARD JOHNSON

SHORTLY after the death of Mohammed "the Prophet" (632 A.D.), founder of the Moslem faith, the Arab invasion swept like a whirlwind from India through northern Africa to the Atlantic Ocean. This vast army of victorious Moslems created with remarkable rapidity an immense empire, where the sciences, arts, and letters played an important rôle.

Having in a few years conquered Asia Minor, Persia, and Egypt, the Arabs determined to invade Barbary (Tripoli of Barbary) and Ifrikïa (Tunisia), under the leadership of Caliph Abdallah ben Bou-Sark, with 10,000 cavalry and 10,000 "Fantassins." Had the Byzantines united with the Berbers they could easily have repulsed the invaders; but the Patriarch Gregory chose this moment to revolt against the Emperor and take the "purple" at Suffetula (Sbeïtla).

Gregory sent 10,000 men against the Arabs, who had already passed through Tripoli of Barbary, but he was defeated and killed at the battle of Akouba, and all the region of southern Tunisia fell into the hands of Abdallah. He treated the natives so well that they were converted to Mohammedism. Serious trouble having broken out in the Orient, the Arabs did not pay much attention to Tunisia until 661, when the Caliph was assassinated by a fanatical Kharedjite. To punish the people, a swarm of Arab cavalry advanced as far as Sousse under Sidi Okba ben Nafa, later governor of Tunisia. He founded in 669 the town of Kairowan, in the midst of an arid desert and salt marsh.

Okba ben Nafa kept on his victorious march until he reached the Atlantic Ocean. The Berbers and Byzantines united to try and defeat him. On his return march he was attacked by the tribe of Aurēs, who were inflamed by Koceïlah, a Berber prince, whom Sidi Okba had taken captive and attached to his suite as a slave.

Okba ben Nafa and 300 of his followers were killed after a desperate fight at a small oasis near Biskra, and the tomb of Sidi Okba is greatly venerated to this day.

Legends tell how Okba ben Nafa chose the site of Kairowan, in the midst of a desert, where nothing grew and where no water was to be found, saying that if a great city could be built there it would be a miracle permitted by

Photo by Lehnert & Landrock

"HE IS ABSOLUTELY HAPPY AND THANKS GOD (ALLAH) FIVE TIMES A DAY FOR ALL HIS BLESSINGS AND FOR THE BEAUTY AND LIBERTY OF HIS SAHARA HOME" (SEE TEXT, PAGE 1093)

Allah's grace. Another legend says that the desert was infested with horrible snakes, vipers and scorpions, and wild beasts, and that Sidi Okba threatened maledictions upon all these creatures unless they went away. Of course they left immediately, never to return. The probable reason for building a town in the desert was its geographical position. What terrors could a desert wilderness have to these hardy Arab conquerors, direct descendants of Ishmael, the son of Abraham by Hagar? They had lived, thrived, and multiplied in the desert.

Carthage, Tunis, Sousse, and Sfax were strongholds of the Byzantines. They doubtless could have been taken by Sidi Okba, but then they would never have been secure from the attacks of the Byzantine fleets. The Arabs knew nothing about the sea and still less of boats and naval warfare. But the desert had terrors for the Byzantines, and that great arid wilderness surrounding Kairowan made it secure from sudden attack and was admirably suited to cavalry combats, that were the delight of Sidi Okba and his men (see map, page 1089).

The sacred city of Kairowan has today 85 mosques and 90 zaouïa praying places, or Moslem schools. After Mecca and Medina, it is the greatest Mohammedan shrine. One pilgrimage to Mecca makes an Arab or any Mohammedan a "hadj," or pilgrim, and he is always addressed as "sidi hadj."

Seven pilgrimages to Kairowan are required before one becomes a hadj. For a radius of several hundred miles the bodies of the "faithful" are brought to Kairowan for burial in "holy earth," and it is owing to the regal bequests of past generations that Kairowan is able to keep up all these mosques and zaouïa.

Kairowan is the only town in Tunisia where infidels can enter the mosques. It was taken by the French without one shot being fired. A famous maribout had prophesied years before that Kairowan would be taken by the French, and the people believed that it was preordained.

On entering the city a clean and healthy place was needed for a hospital, so they took the Grand Mosque of Sidi Okba. Once profaned by infidels, it did not matter if they continued coming to see it; and, if they entered the Grand Mosque, naturally they could enter the others.

A Frenchman came to Tunis several years ago from Algeria, where one is allowed to enter any mosque. He entered the mosque of Sidi-Mahrez, near the Place Bab-Souika; he was attacked and almost killed, as he resisted the Arabs who tried to put him out. Since then a large sign in French, Italian, English, and German is placed before each entrance to a mosque: "Reserved for Moslem worship. Entrance forbidden."

The history of Kairowan is extremely varied and interesting. Until 1881 no foreigner had ever entered its gates and left alive, and today it is the most beautiful Saracen town in existence and contains within its walls a unique collection of architectural fragments of Roman and Byzantine periods of marvelous beauty.

Carthage, El-Djem, Hadrementum, Thyna, and Sbéitla were the quarries where the Saracens took all that they considered worthy to be put into their mosques. Between five and six centuries, when architectural decoration was at its height, had just passed, so that the Arabs had marvelous works of art to choose from.

How they ever transported all those huge columns and blocks of marble will remain a mystery. Sfax and Sousse were the two nearest towns, and the Mediterranean was about 80 kilometers (50 miles) away from Kairowan. Being a sacred town, Kairowan has attracted all the various sects of Moslems and led to many complicated theological disputes. We think of Mohammedans as believing in Allah and "Mohammed the Prophet," and that is about all we know.

The Koran is a difficult book to understand, and after the death of Mohammed four commentaries were written and have been accepted through the Moslem world. They are classified as follows: "Rite of Malickite," "Rite of Hanifaite," "Rite of Hambelite," and "Rite of Scha-

XUM

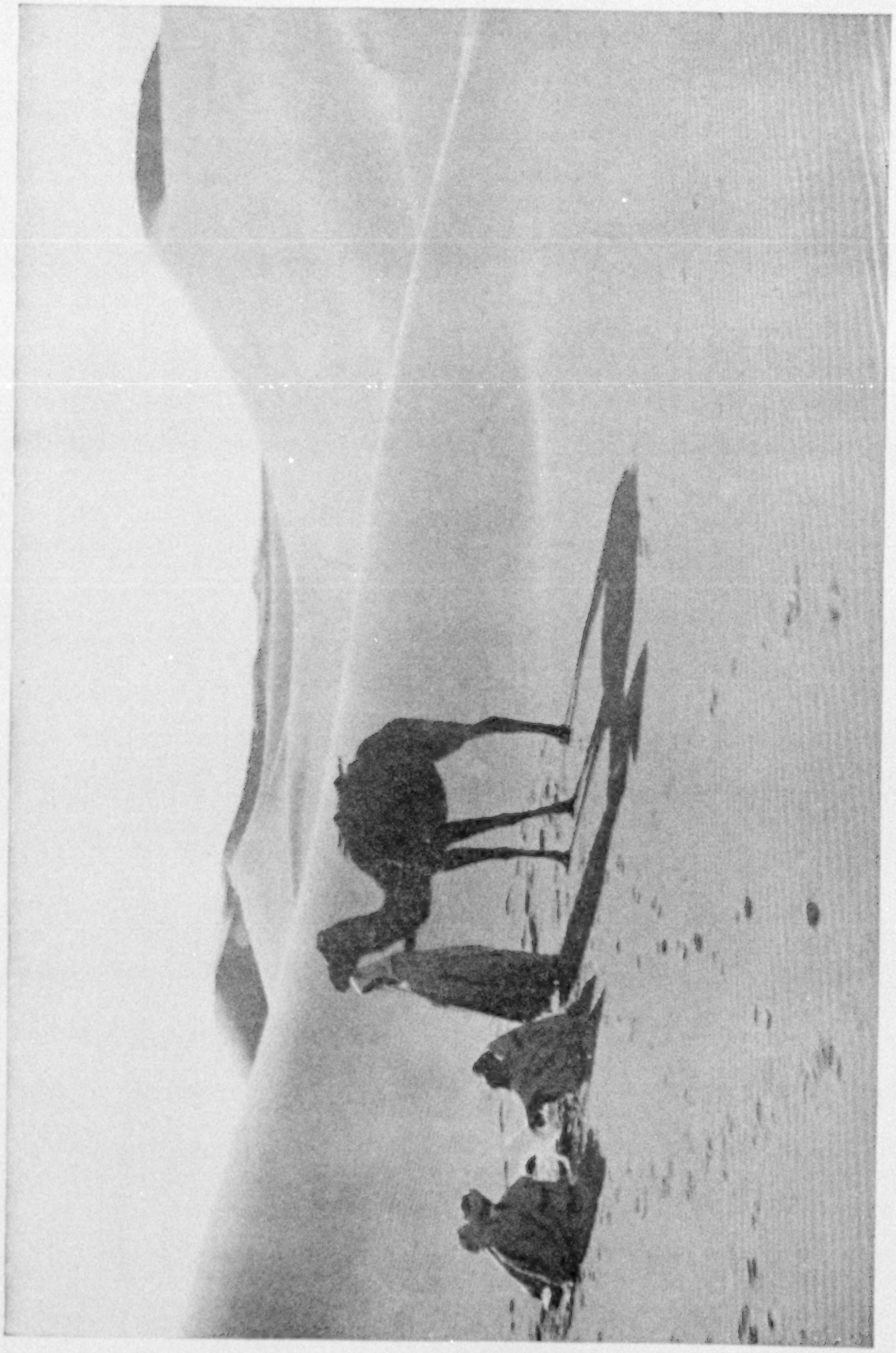
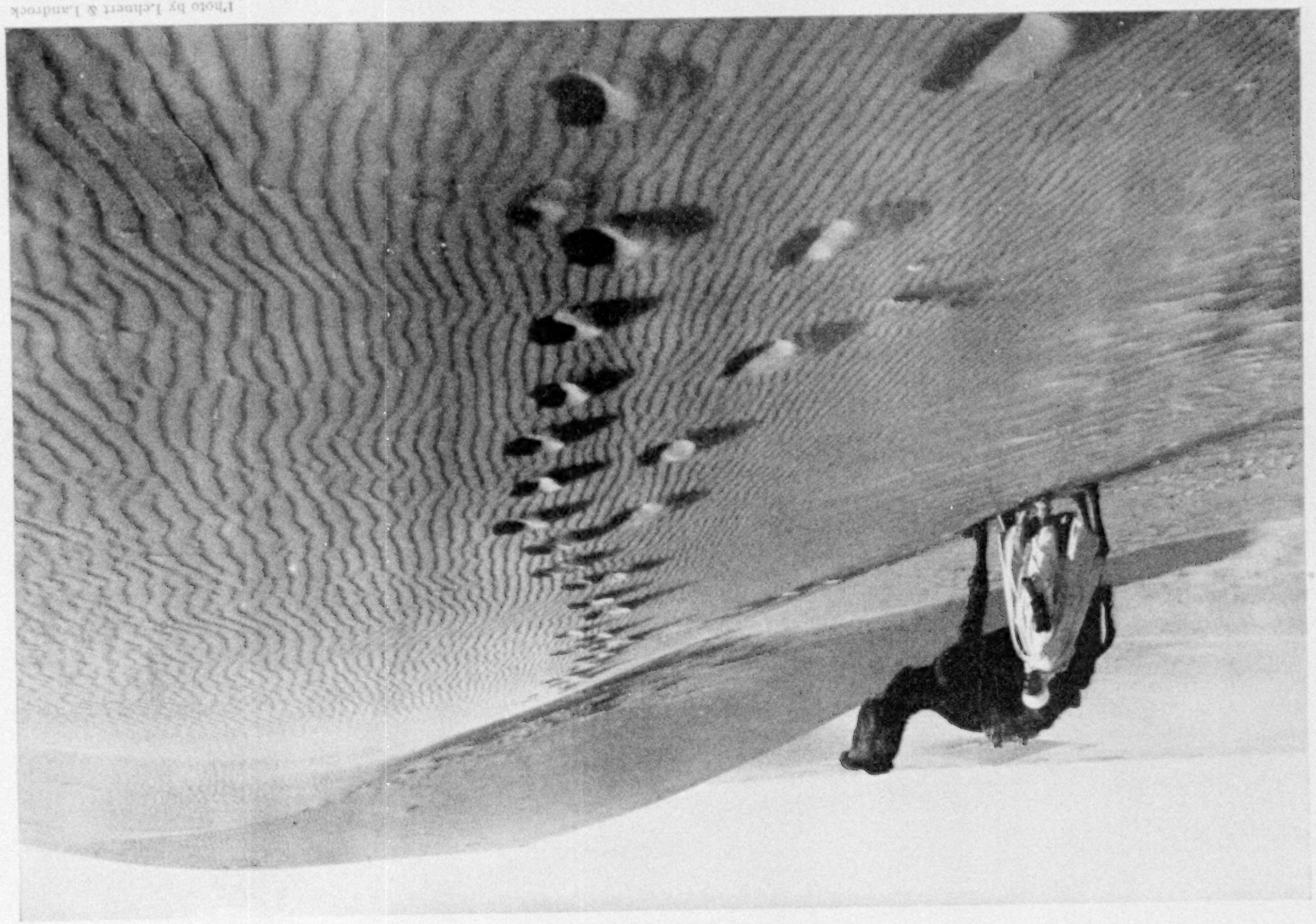


Photo by Lehnert & Landrock

A HALT BETWEEN OASES IN THE SAHARA DESERT

A WANDERER IN THE DESERT: THE WAVES OF SAND ARE CAUSED BY THE WIND

Photo by Lehnert & Landrock



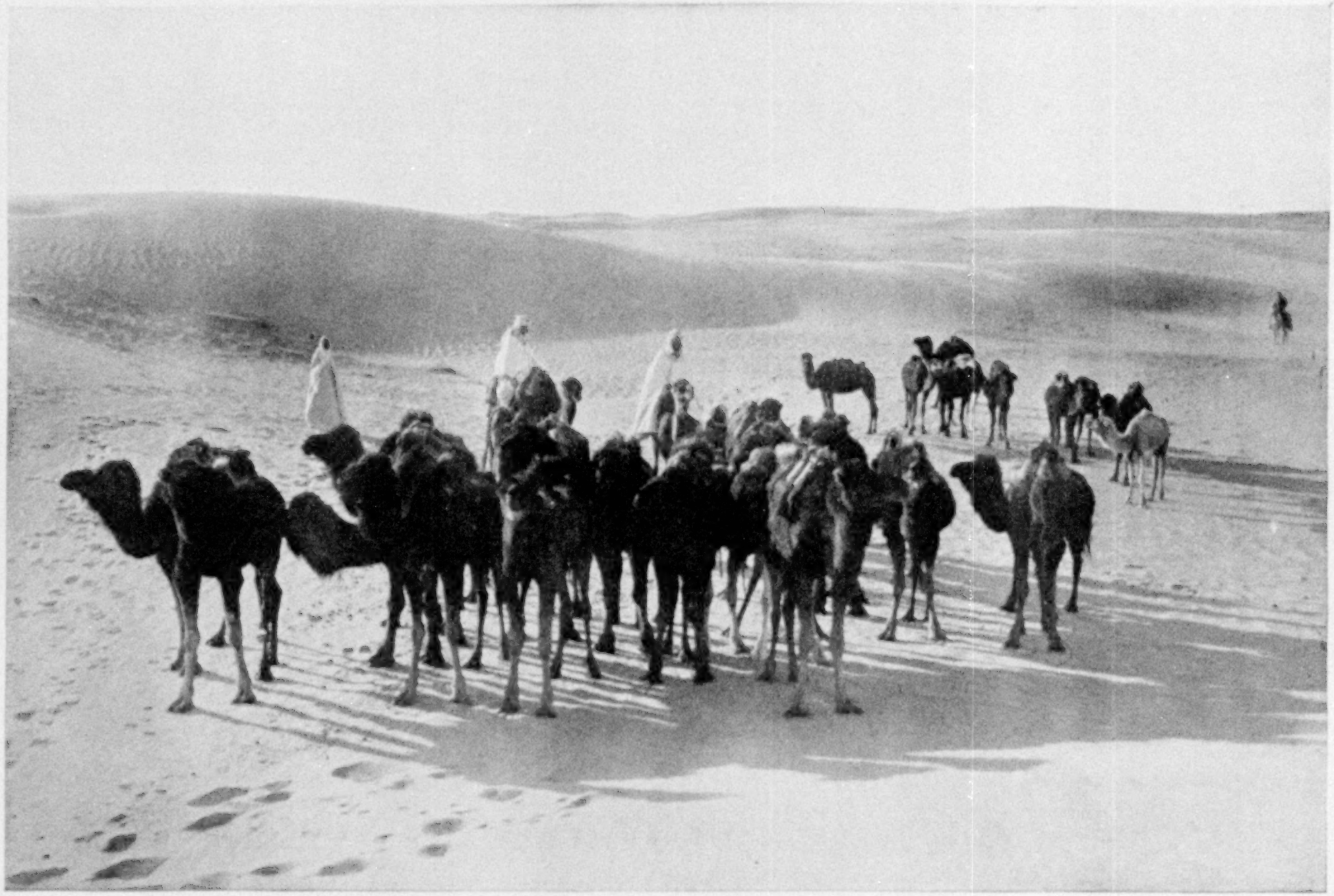


Photo by Lehnert & Landrock

A CARAVAN IN THE SAHARA DESERT JOURNEYING TO KAIROWAN

fieite." These are the four great divisions of Mohammedism today. The follower of one rite can worship in the mosque of any other, and there are other rites considered outside the pale; but the gist of their religion lies in the words one hears five times a day from the tops of the minarets: "Allah is Allah! There is no god but Allah! Mohammed is his prophet!"

THE GRAND MOSQUE OF SIDI OKBA

Two of the mosques deserve especial attention, the Grand Mosque of Sidi Okba and the Mosque of the Barber. The best view of the Grand Mosque of Sidi Okba is from outside the walls of the city, for the narrow streets prevent one from seeing anything except the top of a fluted dome or here and there a minaret (see page 1070).

This great mosque is said to have served as a university for the teaching of Mohammedism during the early times. It has a huge rectangular courtyard with a double arcade of arches, or cloisters, on three sides.

To the right of the entrance is the mosque and its fluted domes, and double columns are used instead of single. To the left of the entrance is a large and curious-shaped minaret, and underneath the floor of the courtyard are enormous cisterns for holding rain-water.

The view from the top of the minaret, once seen, is never to be forgotten. Looking back at the façade of the mosque, one sees a creamy white flat-roofed Oriental town with numerous fluted domes and minarets; a great wall winding in and out and encircling Kairowan; far away in the distance a bluish-pink chain of mountains; everywhere else an arid waste of sand and sage-brush (see page 1072).

The custodian having opened some richly carved wooden doors, we enter the mosque, having first removed our shoes, for then we can walk wherever we like.

Mats made of esparto grass cover the floor, and these must be rolled up unless one has removed one's shoes. A series of large wooden doors extend almost the entire width of the mosque. On great occasions these doors are opened wide, so that the throng of worshipers may join in the service with those in the mosque, and they tell me it is very difficult to get into the courtyard, owing to the crowd (see page 1080).

No description, photograph, or painting can render the effect of the interior of the mosque of Sidi Okba. It is overwhelming—columns of colored marble, porphyry, alabaster, and granite; beautifully wrought capitals of Ionic, Corinthian, or Byzantine design. Egyptian and Roman capitals are to be seen next to others from Constantinople or Jerusalem. There may be a capital of one period with the column of another period and the base of a third (see page 1078).

The ensemble is remarkable for the hundreds of columns, and great arches give an impression of grandeur seldom equaled. The central nave is wider than the others, and at the end is the "sacred niche," or "mihrab," that shows the direction of Mecca, and toward which all Moslems turn when praying. The central nave is decorated with several large candelabra of bronze, on which are fastened countless small glass lamps, like a night light, filled with olive oil (p. 1079).

Near the mihrab is the "mimber," or pulpit, composed of wonderfully carved wooden panels, said to have been carved at Bagdad about the ninth century. They are famed all over the world, and their designs have played an important rôle in the history of decorative art.

In the mosque are superb twin columns of porphyry; they do not stand parallel, but widen as they ascend. Any one who can manage to squeeze between them is pure and just, and all Mohammedans try to force themselves through.

THE MOSQUE OF THE BARBER

The Mosque of the Barber is so called because Abouzoumat Obeïd Allah ibu Adam le Belaouï was Mohammed's barber and companion. He preserved three hairs of the beard of the Prophet, and they are buried with the body of "the barber" in the Mosque of the Barber,

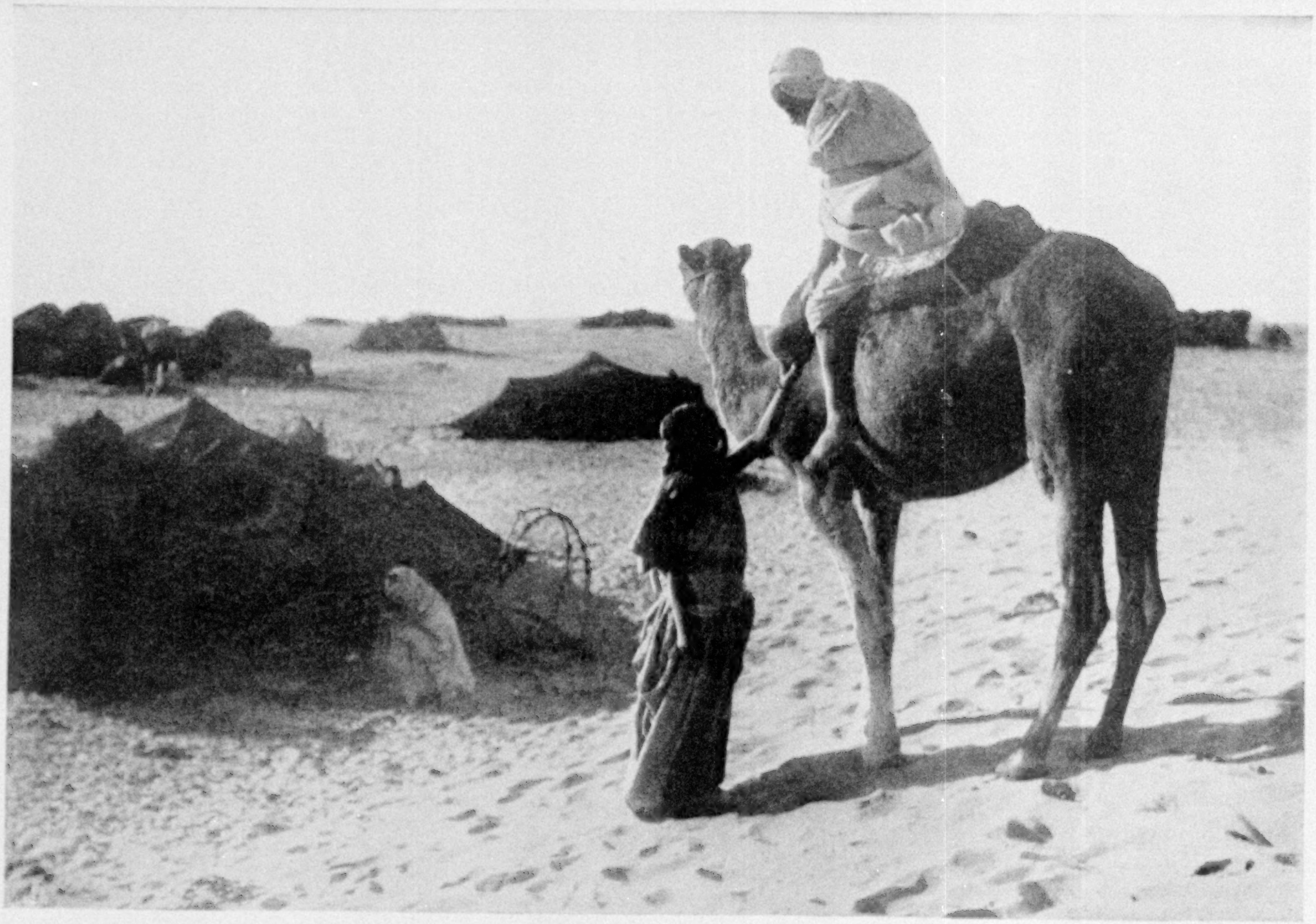


Photo by Lehnert & Landrock

"HIS ONLY DWELLING IS A CRUDE TENT MADE OF CAMELS' AND GOATS' HAIR" (SEE PAGE 1093)

which is over half a mile outside the walls of Kairowan.

One enters first a large courtyard of the school, or zaouïa; doors open out of it, giving access to the rooms of the professors, students, and servants. The exquisitely hand-wrought stucco-work and the Moorish faience tiles remind one of the Alhambra. Parts of this mosque are modern, and show what the Arabs can do today. Alas, art is not encouraged or well paid, and as the old craftsmen die their sons cannot fill their places, and Arab art will soon be a thing of the past. After the courtyard of the zaouïa comes a small rectangular courtyard, open to the sky and most beautifully decorated in blue and green tiles. Above all is a fluted dome of creamy white against a soft blue sky. Opening out of this small courtyard is a large one with a graceful cloister extending on all sides.

Opening out of the patio is a room in which is placed the catafalque of "the barber." It is covered and surrounded with flags of vivid colors richly embroidered in gold and silver. Between the banners are hung ostrich eggs and bags containing "holy earth" from Mecca—votive offerings brought back by pious pilgrims. Scattered over the floor are numerous Oriental prayer-rugs and carpets, many of great value. At the foot of the tomb hangs a crystal candelabrum.

One notices marble doors and window-casings of Italian workmanship, and Henri Saladin tells the following story in his book, "Tunis et Kairowan":

During the 18th century an Italian doctor was captured by pirates and sold to a wealthy native of Kairowan. This man became very ill and his life was despaired of by the local doctors, but his Italian slave was most devoted and saved his life. On getting well the man of Kairowan gave the Italian doctor his liberty and great riches and sent him back to Italy. On his arrival there he ordered the marble doors and fittings one now sees in the Mosque of the Barber, and sent them as a present to his former master, who was most interested in the zaouïa and Mosque of the Barber.

It would take a large volume to describe all the various mosques and zaouïa of Kairowan. There is one more of especial interest, Mosquée de Sidi-Amor-Abbada, or the "Mosque of the Swords." This mosque owes its existence to a dwarf blacksmith who became a famous marabout. Being small, he had a mania for large things, and forged many great swords and battle-axes covered with verses of the Koran. He also made a huge Turkish pipe, or "chibouk," so tall that no giant could ever have used it. The Mosque of the Swords was built stone by stone, as pilgrims left their small or large offerings. The maribout dwarf lies buried in a huge tomb in the mosque. He died about 50 years ago, so that the Mosque of the Swords, with its five picturesque fluted domes, is the most modern mosque in Kairowan (p. 1071).

When Sidi Okba founded Kairowan there was no water. Ibrahim el Aglab, called the "Louis XIV of Tunisia," owing to his love of luxury and superb edifices, had two very large circular reservoirs built to the north of Kairowan, and they were known as the "Cisterns of the Aglabites." When the oued Merg-el-lil overflowed, the water was caught in the smaller of these two cisterns, where it deposited all impurities, then filtered through into the larger reservoir. They are said to contain over 100,000 cubic meters of water (about 2½ million gallons).

Thanks to the French administration, water has been piped from the springs of Chérichira, so that the Cisterns of the Aglabites have been restored and are filled with a never-failing supply of excellent water. "The inhabitants of Kairowan say that they are very grateful to the French protectorate for this water; but the fanatics add that if the 'roumis' (foreigners) have done these nice things, it is because they have been the instruments of Allah, who makes them work for the benefit of the 'faithful.'" *

In every town or village where Arabs dwell are to be found zaouïa or houses

* Quotation from Charles Lallamand in his book "La Tunisie."

Photo by Lehnert & Landrock

OUTSIDE THE WALLS OF KAIROWAN: THE MINARET, FLUTED DOMES, AND BUILDINGS TO THE LEFT ARE THE GRAND MOSQUE OF SIDI OKBA: IN THE MIDDLE FOREGROUND IS A NATIVE WELL

"Legends tell how Okba ben Nafa chose the site of Kairowan, in the midst of a desert, where nothing grew and where no water was to be found, saying that if a great city could be built there it would be a miracle permitted by Allah's grace" (see page 1067)

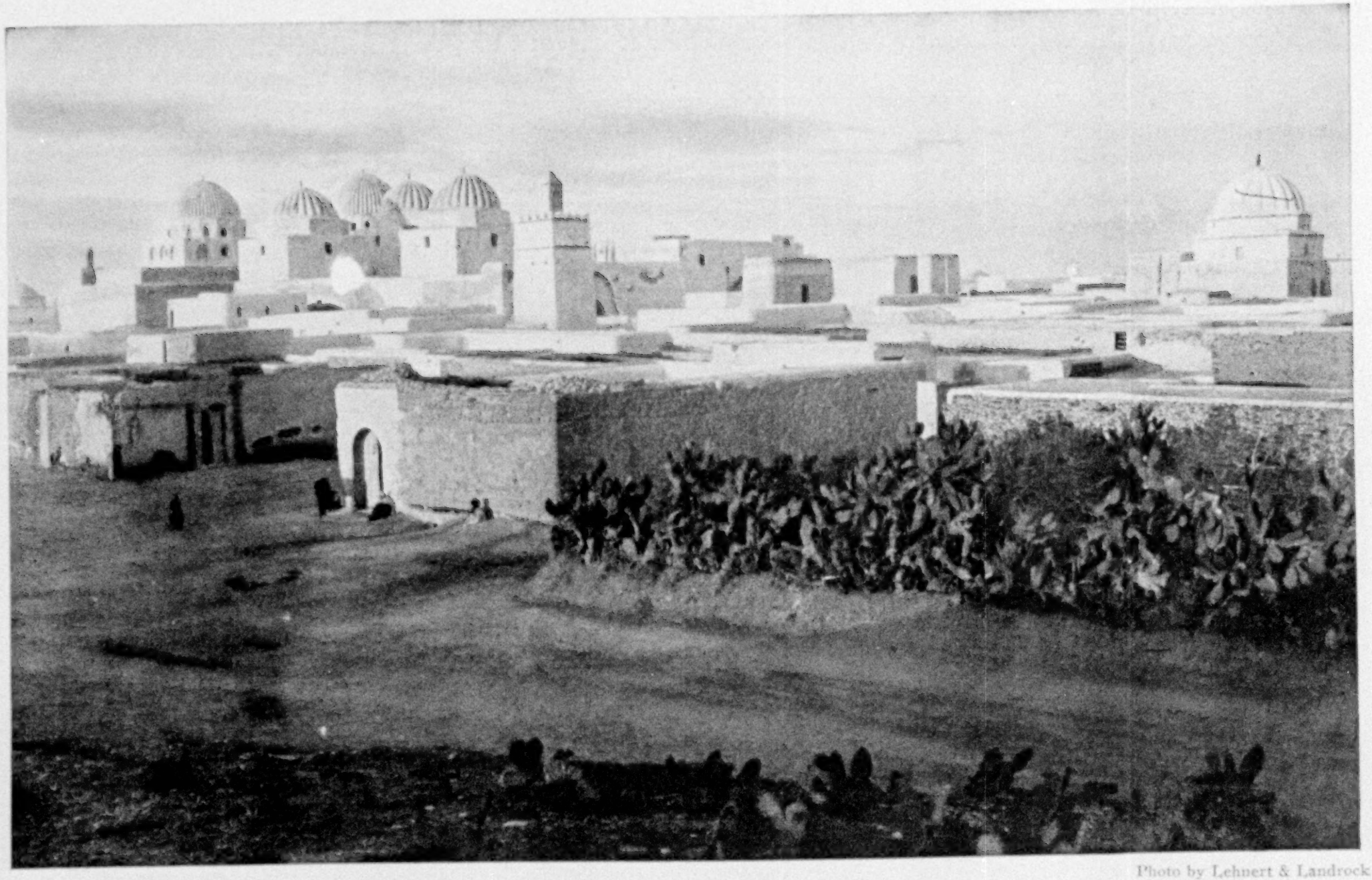


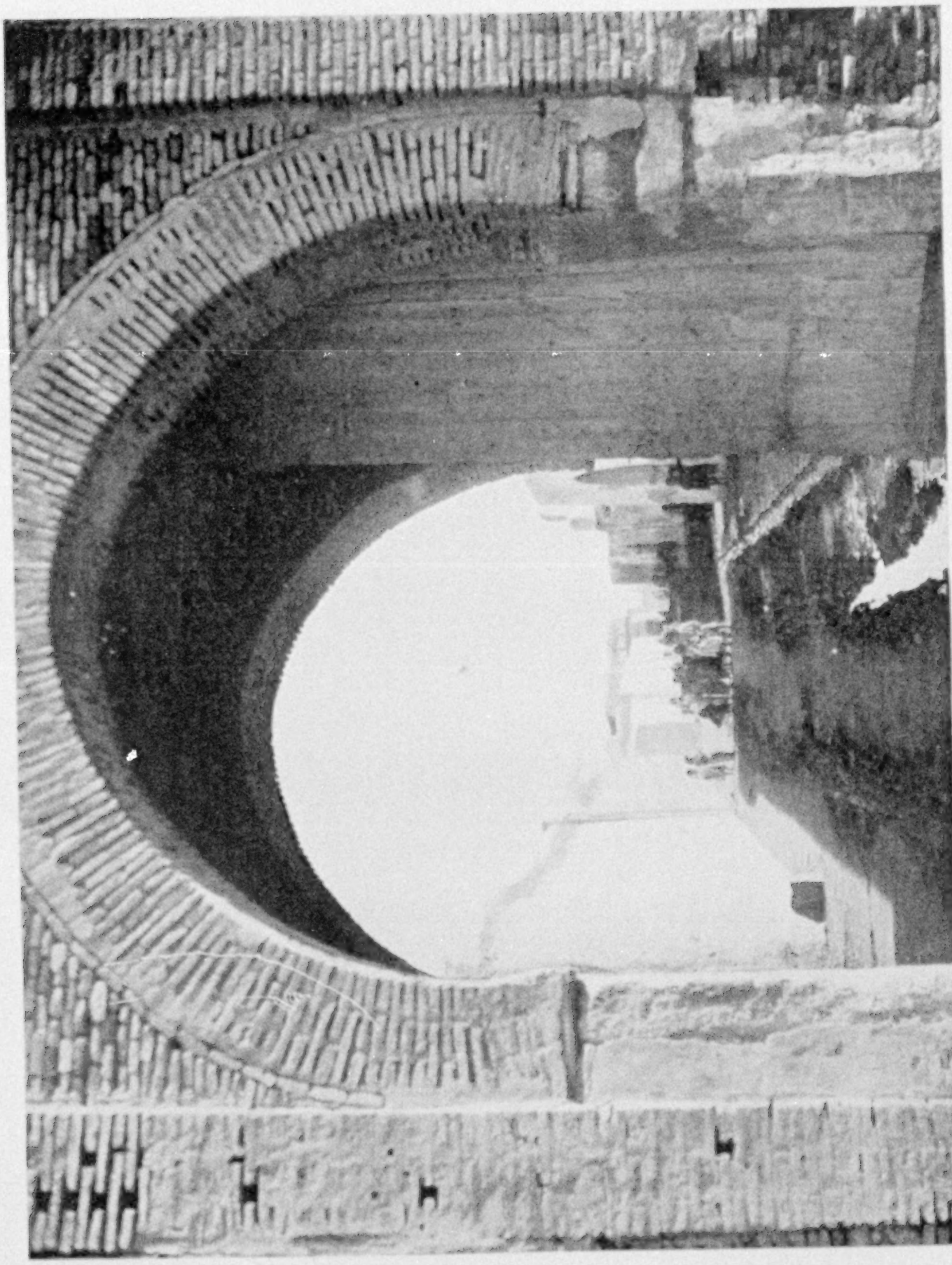
Photo by Lehnert & Landrock

"MOSQUE OF THE SWORD," OR MOSQUE OF SIDI AMOR-ABBADA, OUTSIDE THE WALLS OF KAIROWAN: THE FLUTED DOMES ARE SUPERB IN THE SUNLIGHT AGAINST A BLUE SKY: NOTE THE PRICKLY PEAR IN THE FOREGROUND (SEE PAGE 1069)

Photo by Lehnert & Landrock

PANORAMA OF KAIROWAN FROM THE MINARET OF THE GRAND MOSQUE OF SIDI OKBA, SHOWING CITY WALL

"It is the most beautiful Saracen town in existence, and contains within its walls a unique collection of architectural fragments of Roman and Byzantine periods of marvelous beauty. Carthage, El-Djem-Hadrementum, Thyna, and Sbéitla were the quarries where the Saracens took all that they considered worthy to be put into their mosques. How they ever transported all those huge columns and blocks of marble will remain a mystery" (see page 1067).



ONE OF THE GATES OF KAIROWAN: NOTE THE THICKNESS OF THE CITY WALL

Photo by Lehnert & Landrock

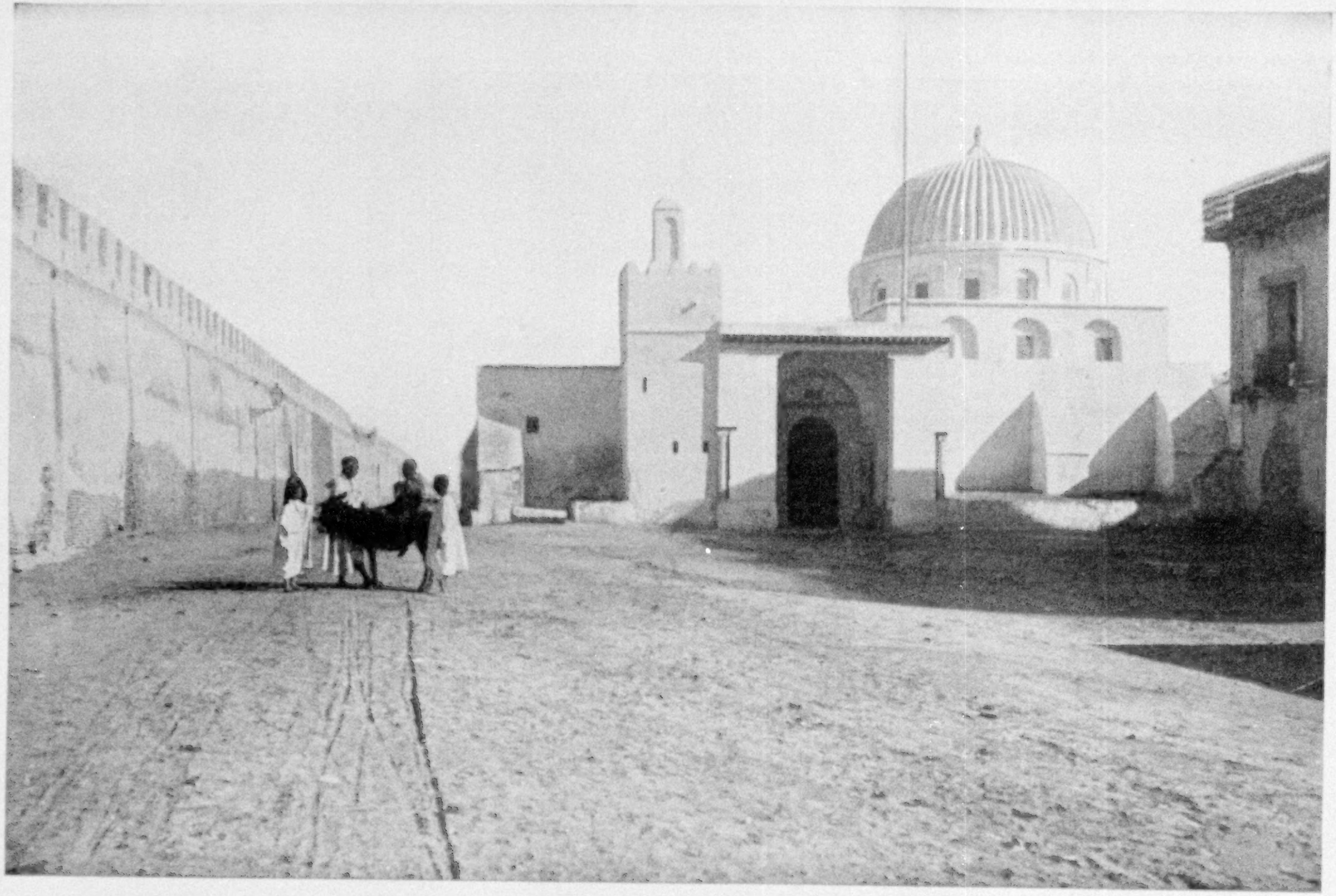


Photo by Lehnert & Landrock

ONE OF THE MOSLEM SCHOOLS, OR ZAOUIA, OF KAIROWAN, AND CITY WALL TO THE LEFT: THE SACRED CITY CONTAINS 85 MOSQUES AND 90 MOSLEM SCHOOLS (SEE PAGE 1063)

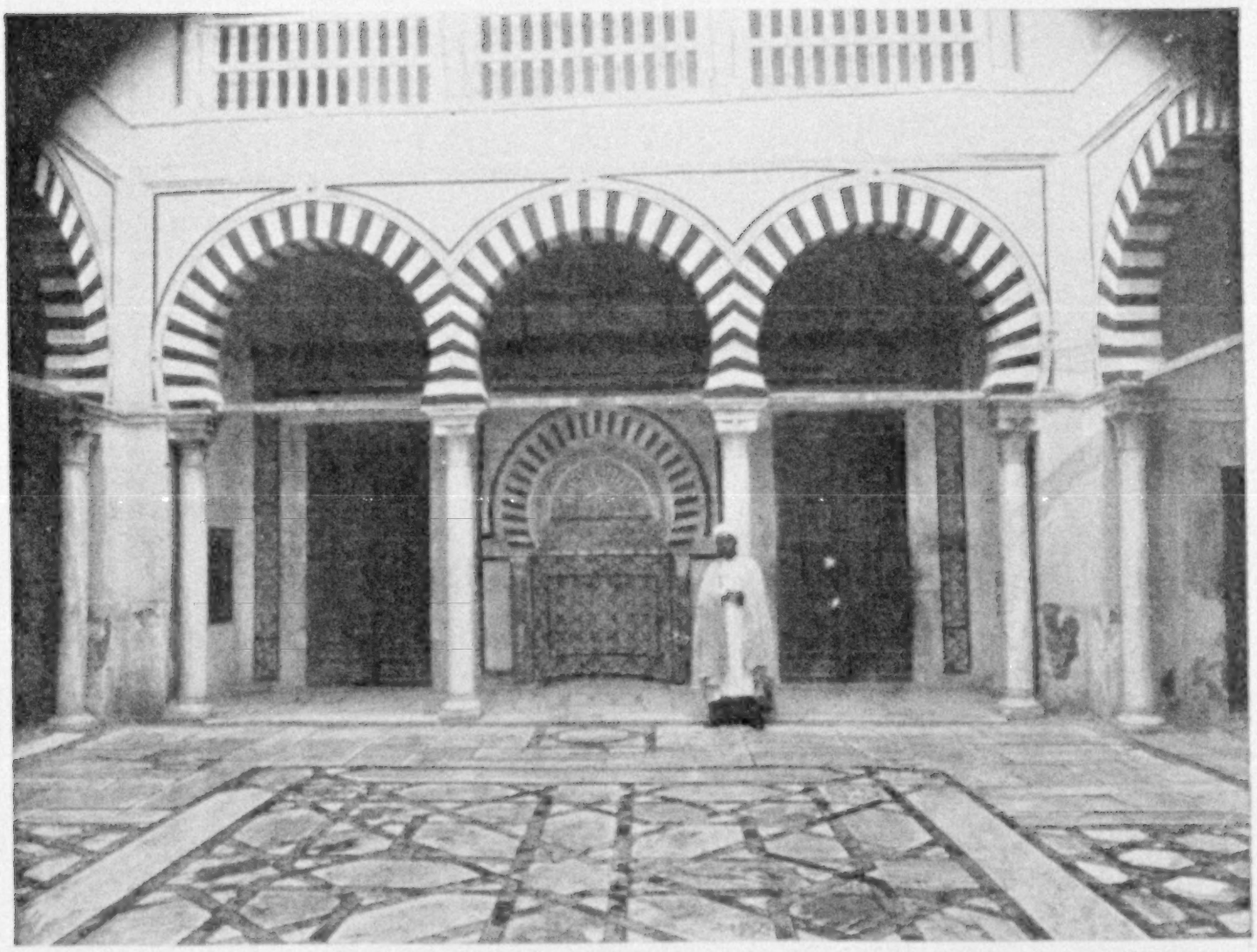


Photo by Lehnert & Landrock

INTERIOR COURTYARD OF ONE OF THE MOSLEM SCHOOLS, THE ZAOUIA OF SIDI ABID EL GAHRIANI: KAIROWAN

belonging to a Mohammedan religious sect called "Aïssaouas," or "Brotherhood of Jesus." This sect was founded by Sidi Mohammed ben Aïssa, of Meknés, Morocco, about 380 years ago, and is very largely followed in Tripoli of Barbary, Tunisia, Algeria, and Morocco. Owing to all mosques and zaouïa being open to foreigners in Kairowan, most people think the sect has headquarters there; but such is not the case. But it is the only place where infidels are admitted to watch their sacred rites.

Walking down several narrow streets, I entered the zaouïa of Sidi Mohammed ben Aïssa of Mecknés, small when compared to the large mosques of the Barber and Sidi Okba. It was late in June, and, owing to the great heat, all foreigners had left Kairowan that could, so that I was to be alone amidst hundreds of fanatics to watch their sacred rites, which take place every Friday afternoon throughout the year. A priest gave me a chair. Evidently a service had just been finished, for there were hundreds of Arabs in the building. Some went out, while others came in.

SWALLOWING SCORPIONS ALIVE

The high priest, called a sheik; the second high priest, called a moudadem, and the third, called a caliph, and the elders of the zaouïa formed a large circle, sitting on the floor chanting and beating their tom-toms, now fast, then slow. Several rows of men and youths had stood themselves in line, bowing and swaying to the rhythm of the music. Faster and faster beat the tom-toms;

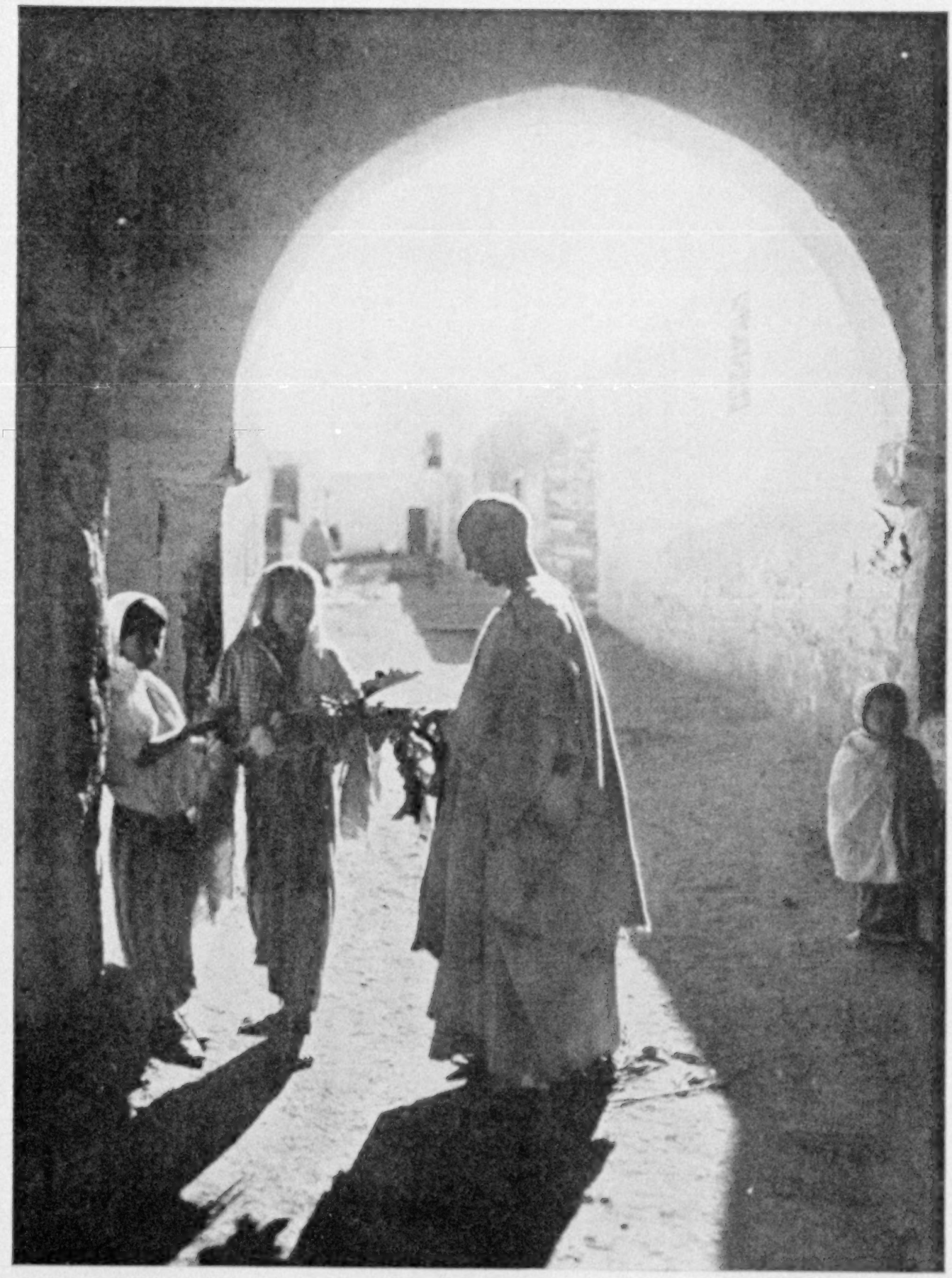


Photo by Lehnert & Landrock

STREET SCENE IN KAIROWAN

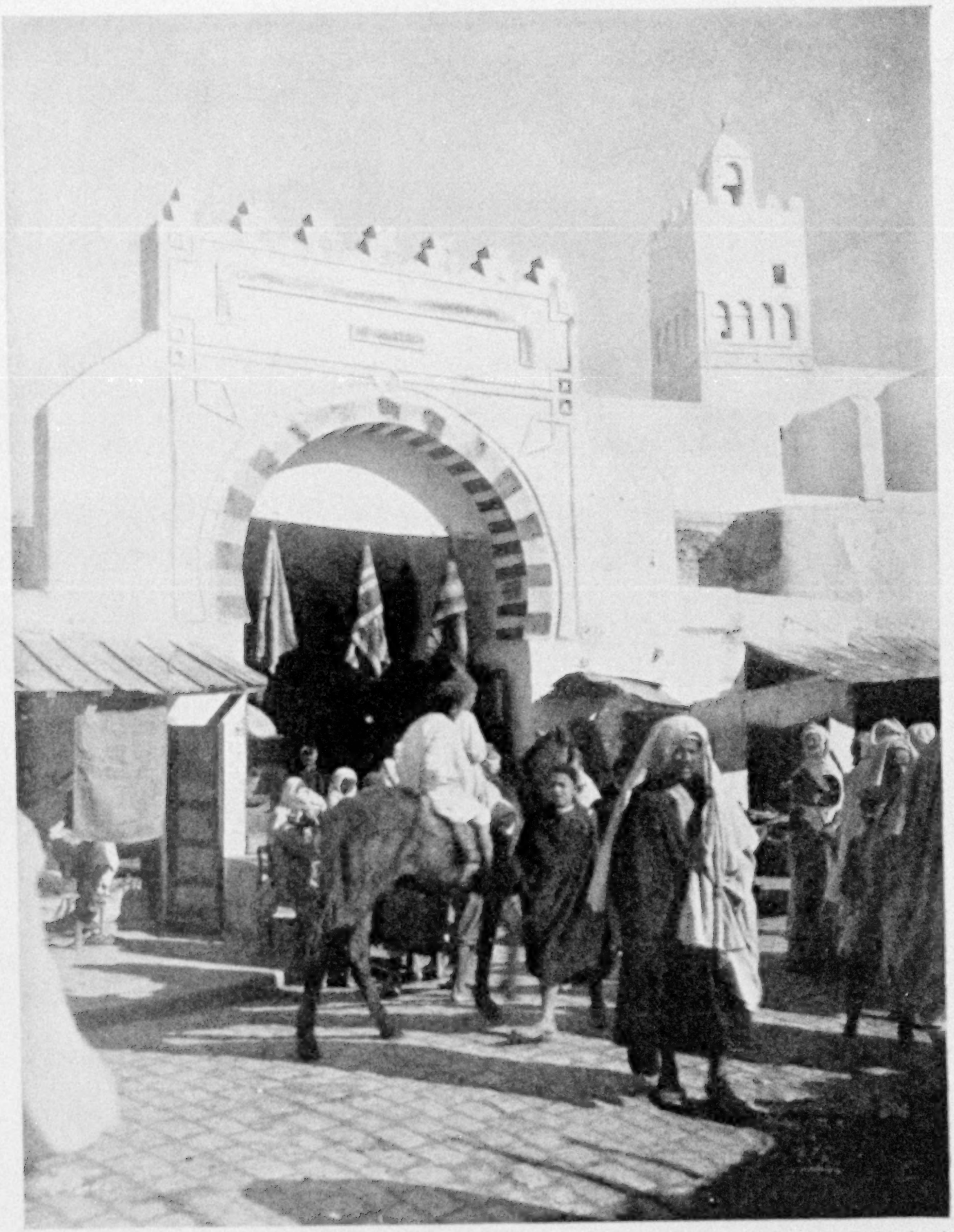


Photo by Lehnert & Landrock

ENTRANCE TO THE SOUKS, OR BAZAARS: KAIROWAN (SEE PAGE 1089)

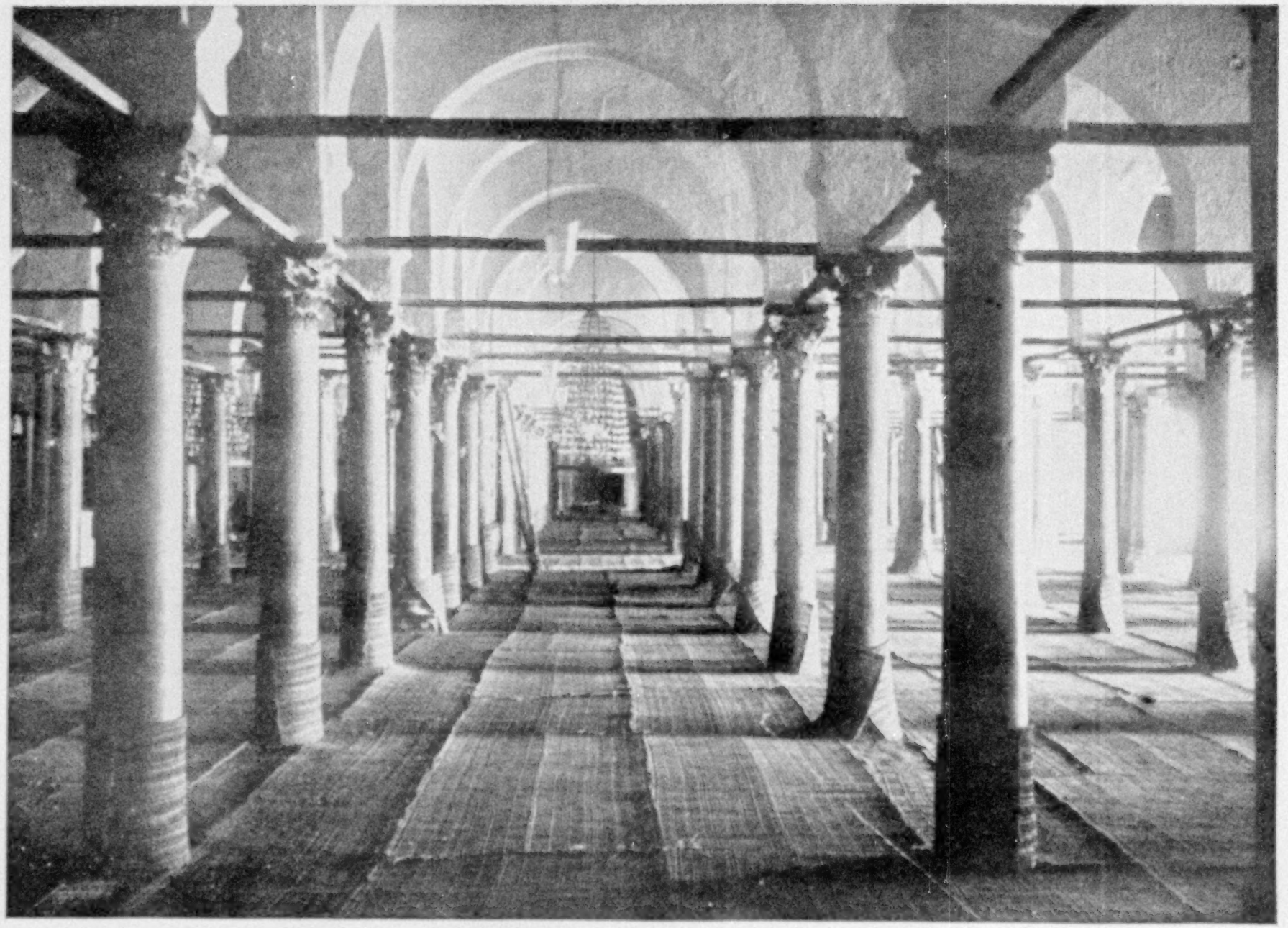


Photo by Lehnert & Landrock

INTERIOR OF GRAND MOSQUE OF SIDI OKBA: KAIROWAN

"No description, photograph, or painting can render the effect of the interior of the mosque of Sidi Okba. It is overwhelming—columns of colored marble, porphyry, alabaster, and granite; beautifully wrought capitals of Ionic, Corinthian, or Byzantine design. Egyptian and Roman capitals are to be seen next to others from Constantinople or Jerusalem" (see page 1067).

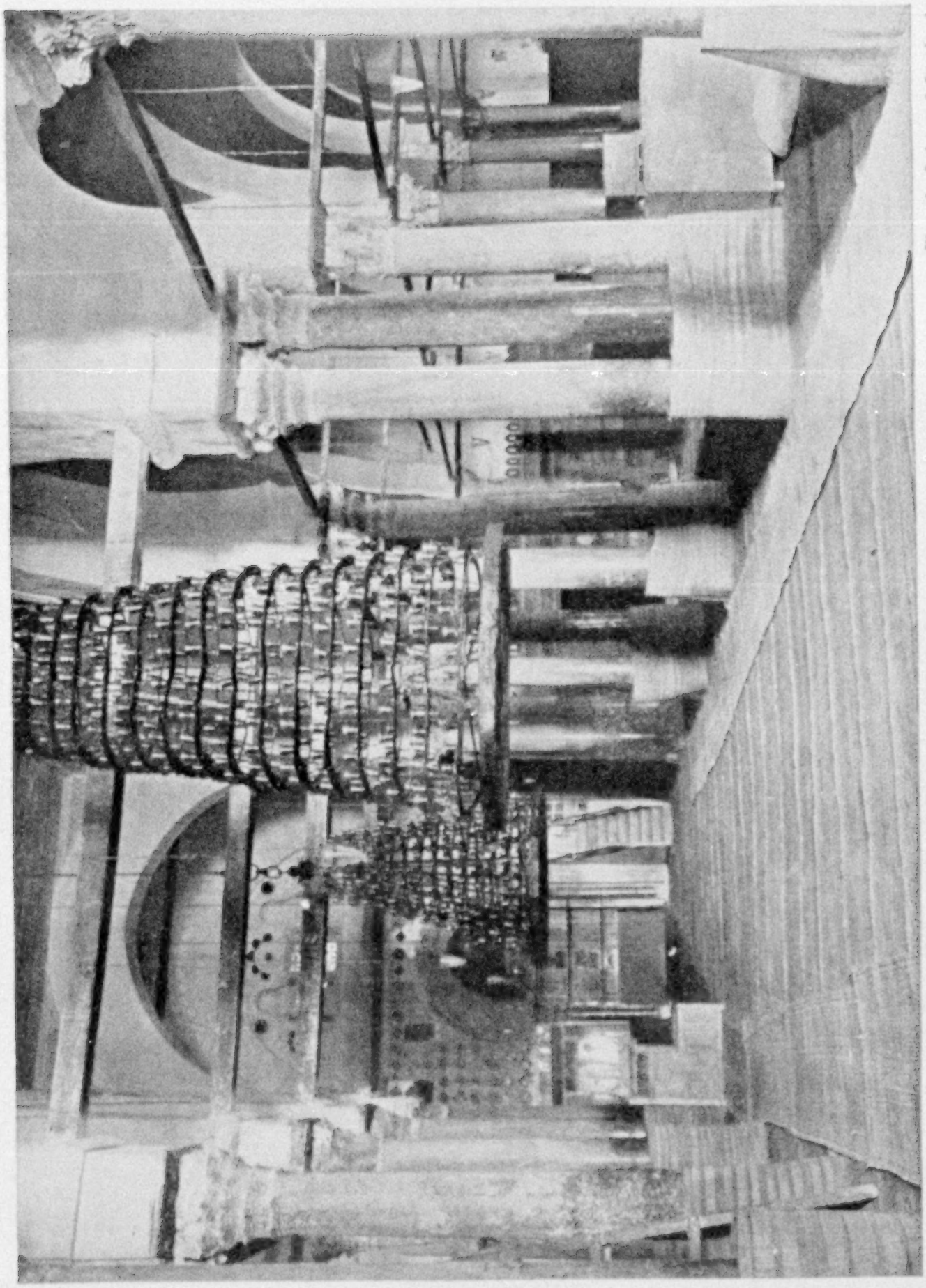


Photo by Lehnert & Landrock

ANOTHER VIEW OF THE INTERIOR OF THE GRAND MOSQUE OF SIDI OKBA, KAIROWAN, SHOWING THE MIHRAB, OR HOLY NICHE (SEE PAGE 1067)

Note the huge candelabra with the countless small glass lamps, filled with olive oil

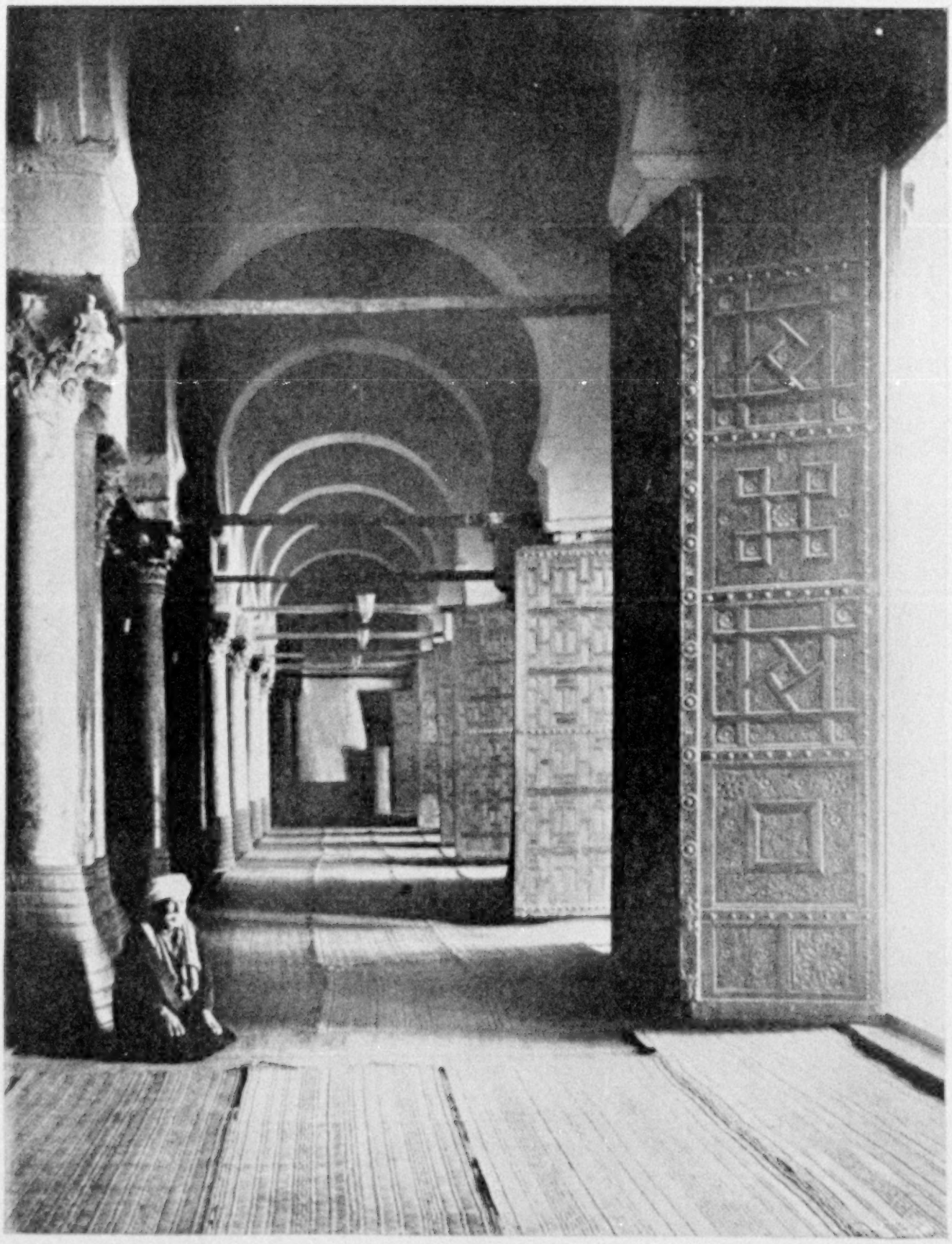


Photo by Lehnert & Landrock

A VIEW OF THE INTERIOR OF THE GRAND MOSQUE OF SIDI OKBA, KAIROWAN, SHOWING A SERIES OF OPEN DOORS

When great pilgrimages arrive or on special days, when the number of "the faithful" is so great that they cannot all enter the grand mosque, the doors are thrown open, thus making the huge courtyard a part of the mosque (see page 1067).

faster and faster swayed the lines of men.

After what seemed a long time a young man jumped from the front line and ran toward the chaoüche, or priest, who had arisen and given him his hand to kiss; whereupon he immediately stripped to the waist, keeping on only a pair of white Oriental trousers.

A wooden box full of scorpions had been brought over to me to look at. There were black, yellow, and white, and I knew from experience how dangerous they were. An under-priest, "bache chaoüche," stood upon a sort of stool and held high above his head a large scorpion by the tail. The fanatic howled, snapped, and jumped for it, the way a mad-dog snaps at persons, and his eyes had an unnatural stare and glassy look, and he foamed and frothed at the mouth.

After a few seconds the bache chaoüche dropped the scorpion into the fanatic's open mouth. He gave one snap and gulped it down alive, to be followed in an instant by another. By this time about 20 men and youths were stripped to the waist, all snapping and frothing at the mouth. The first fanatic came so near me that I could feel his hot breath on my face.

RITES OF TORTURE

An under-priest had brought up two round swords the size of my little finger and about one meter in length. The chaoüche seized the flesh and muscles of the fanatic's shoulder, and, with a quick thrust, drove the florette through so that about 15 inches protruded on either side of the shoulder. He then did the same with the second sword to the other shoulder. Two more florettes had been brought up by an under-priest. All the swords had handles of hardwood shaped like a large ball.

The fanatic braced himself and the chaoüche, chanting a verse from the Koran, drove the sword into one side of the abdomen. The second sword was done likewise on the other side of the abdomen; and, with these four swords sticking into him, the fanatic walked about, and the bache chaoüche followed him and at every other step hit with full force, with a kind of sledge hammer, on the hard wooden balls fastened as handles to the swords, driving them deeper at every blow.

The leaves of the "prickly pear" had been brought in in large baskets, and other fanatics, instead of being thrust through with swords, laid down and rolled on a bed of prickly pear leaves (not the Burbank variety, without thorns), and men covered their bodies with more leaves. The chanting and beating of the tom-toms continued meanwhile.

The noise of the music and the you-you-yous of approval from the women, hidden behind great lattice screens; the close air and the odor of incense, mingled with the smell of sweat, made me almost nauseated. About 70 men—old, middle-aged, and young—underwent this terrible ordeal.

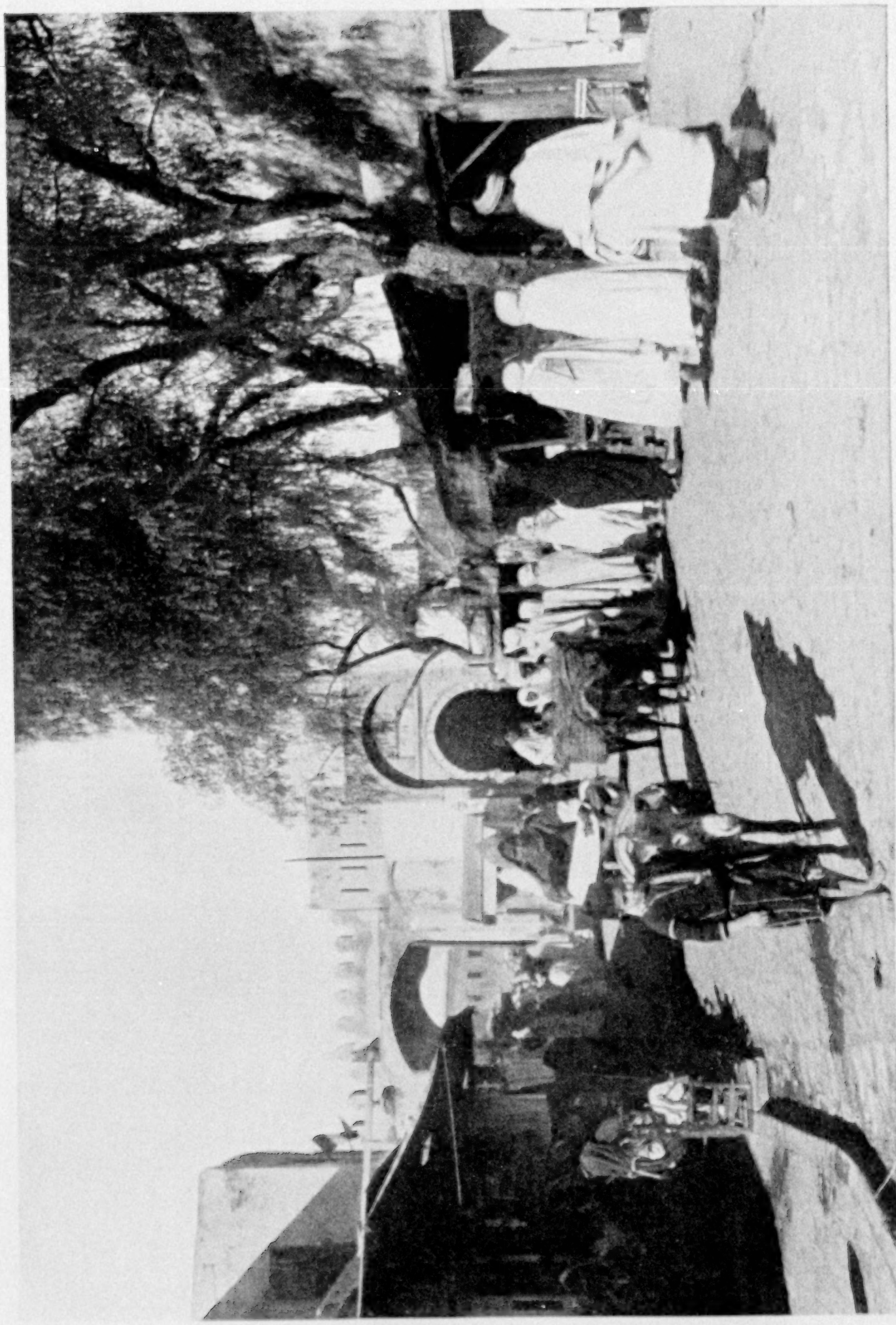
The swords were pulled out by the chaoüche or moudadem, who placed what looked like a large bandana handkerchief about the sword and over the wound and with great force jerked out the sword. The fanatic would throw his arms around the neck of the moudadem and cling to him, while he whispered a few words of comfort into his ear. Immediately his eyes would lose their glassy stare and his face relax and become normal.

EXPLANATION OF THESE TORTURES

During my journey through the Troglodyte country, in extreme southern Tunisia, I was frequently permitted, as guest of the cadi, to see the Aissaouas at their rites. One moonlight night, as everything was in full swing—Brebisch, Mohammed, and I sitting on the flat roof, the courtyard being too small to contain all that wanted to follow the service—the captain of the "Affaires Indigenes" came up with several officers leaving for Morocco the next morning. Immediately everything stopped. The officers were non-believers, and they would not continue their religious rites. No threats of imprisonment or punishment were of avail.

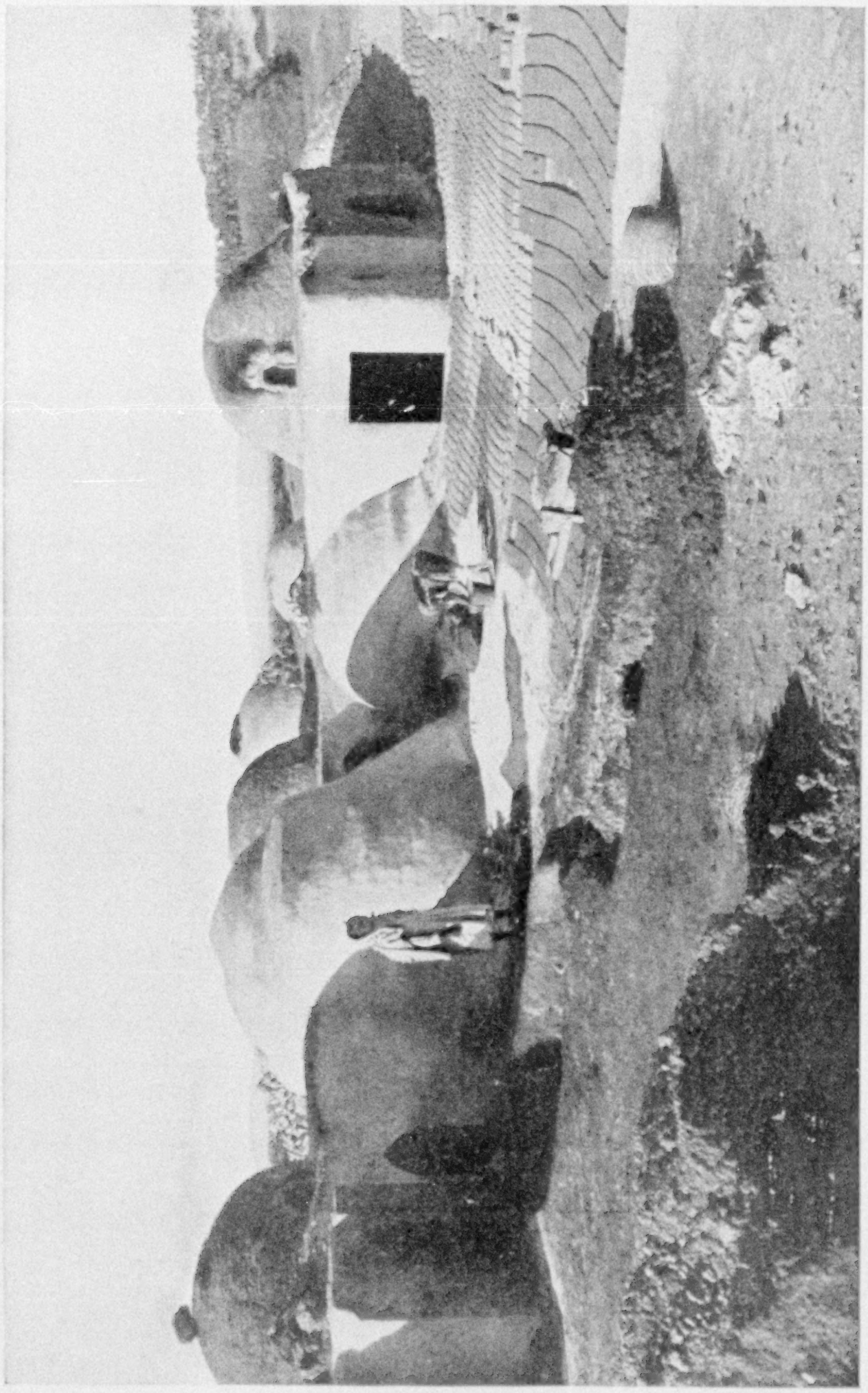
A STREET SCENE IN KAIROWAN

Photo by Lehnert & Landrock



"PORTE DE TUNIS," KAIROWAN; PEPPER TREES ON THE RIGHT-HAND SIDE

Photo by Lehnert & Landrock



ARAB KILNS FOR MAKING TILES: NEAR KAIROWAN

Photo by Lehnert & Landrock

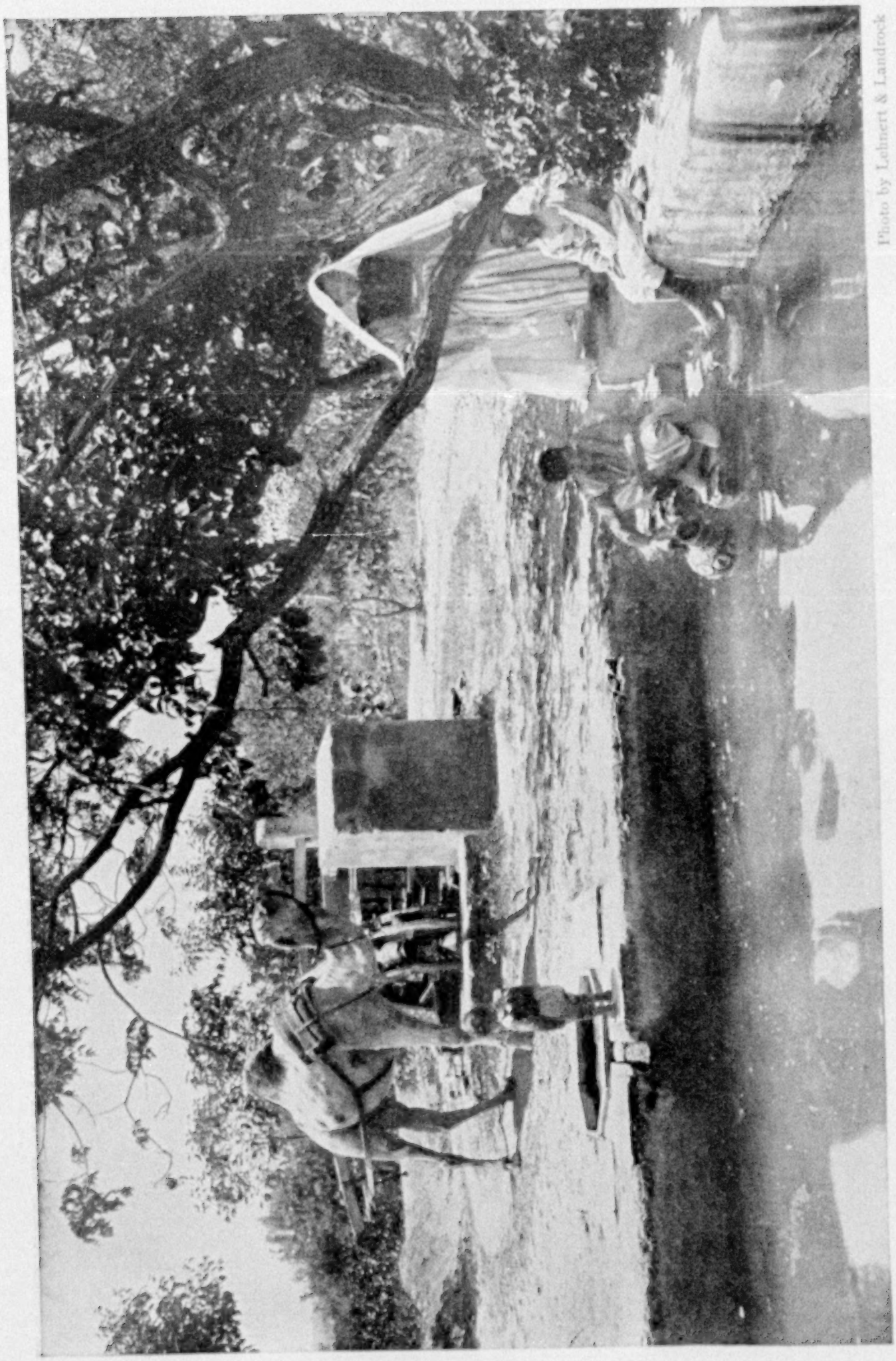


Photo by Lehnert & Landrock

A NORIA (WELL): THE CAMEL WALKS AROUND AND AROUND AND BRINGS UP WATER IN THE POTTERY JARS, AND KEEPS THE RESERVOIR IN THE FOREGROUND FULL OF WATER FOR IRRIGATING PURPOSES

Photo by Lehnert & Landrock

ARAB WOMEN OF KAIROWAN

At the end of the seance the men would lie stiff on the ground, apparently dead. Only after rubbing and chafing their bodies and sometimes biting their ear would the fanatic come to. Five times during my stay at Foum Tatahouine I saw the same man—he keeps the large Arab café near the market-place—swallow from 8 to 15 ten-penny nails.

One curious fact is that members of this sect are always proof against the stings of scorpions and snake-bites, not only when under this sort of hypnotic spell, but when working at their daily tasks. I could not believe this statement until I saw it proved time and again. Do they die? do they bleed? were questions that I was asked frequently in America. If they die one never knows, and they should not bleed, and do not as a rule; but they bleed profusely once in a while, and this is what two of the high priests told me when I asked them about it:

"There are certain holy rules laid down by Sidi ben Aïssa. God is a God of love and kindness, but he will not be trifled with. We do not confess to priests or men. It is between oneself and God. A man must wash himself. He must be pure within.

"If a man has broken any of the commandments of the Koran, or defiled himself in any way and comes to the religious rites of the Aïssaouas, then he will bleed, or the fire will burn, or the scorpions will choke him. He must purify himself first; then all will go well."

The high priest is called a sheik; next comes the moudadem, then a caliph, then a bache chaoüche and chaoüche. A man called moharake shows people their seats and a bache taballe leads the tom-toms.

1. The hypnotized fanatic that eats Barbary figs (prickly pear), glass, etc., is called a camel; in Arabic, "djmmel."

2. The second is called a lion. He imitates a lion and eats sheep and bulls alive. "Saïdie" is the name.

3. The third is called an ostrich, or "rafeiy." He swallows nails, scorpions, and has swords thrust through him.

4. The fourth thinks himself a cat, "kat-oüss," and climbs trees and buildings and jumps down unharmed. He eats shoes and hot iron and swallows burning coals of fire.

5. The fifth, called in French "le merle," a species of blackbird; in Arabic, "háutiffa." He jumps down deep wells with his clothes on, and comes out dry and his mouth full of water. He also jumps and hops about like a bird.

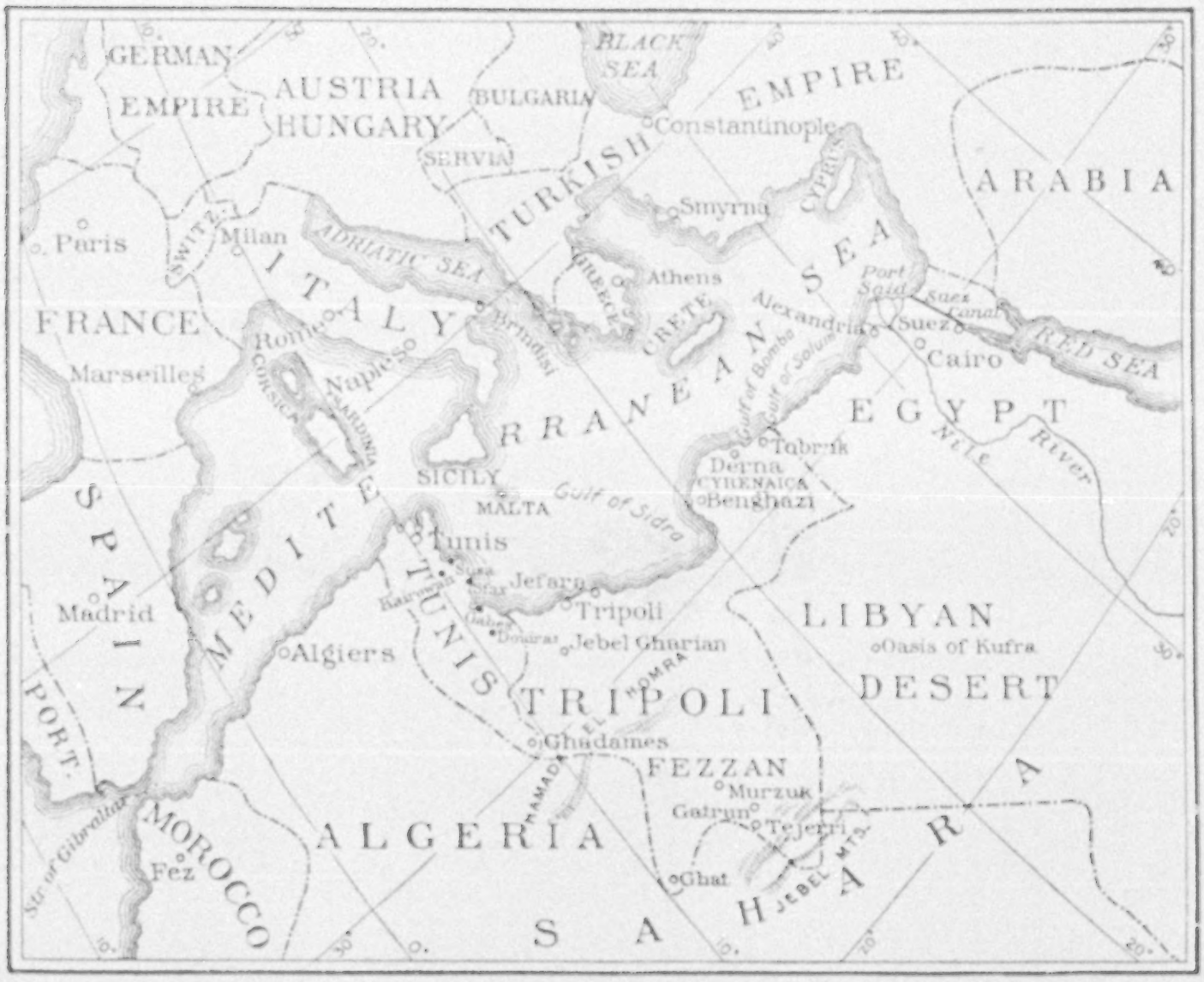
6. The sixth and last is called "okascha." No one has ever been able to tell me its meaning. He is a sort of Samson, or strong man, and will break strong ropes or chains when bound. He seems to possess marvelous force, for I have seen 12 strong Arabs try to throw him, and he tossed them about like straw. Then the sheik himself had to go up to him; he was a wiry-looking old man. He passed his hand several times over the fanatic's face and he, with a gasp and groan, sank, apparently lifeless, to the floor. The strong man was trying to break down a stone wall with his head, and was in a very ugly mood, so that the 12 Arabs tried to throw him, so one of the chief priests could calm him.

* * * * * * *

The explanation for these various tortures is, word for word, what about 20 sheiks and moudadema told me when gathered together in the Café Douirat in Tunis. One sheik was a mighty hunter, whom I had met far south; another was from the Troglodyte town of Douirat; two others from near Gabes, and one from Kairowan. I told them what I had seen as a boy and recently in Tripoli and Tunisia, and that people in America would not believe that they did these things. So evenings we met and had heart-to-heart talks, and what I have written are the notes scribbled down on the spot. I cannot explain to you why they are not hurt. It seems impossible that a man run through the abdomen with a small round sword does not die, or at least feel the after-effects. As a well-known English surgeon said to me, on his return home from Kairowan,

Photo by Lehnert & Landrock

FIFTEEN MONTHS OLD: KAIROWAN



OUTLINE MAP SHOWING LOCATION OF KAIROWAN, TUNIS

"Why do they not all die of blood poisoning?"

The French quarter of Kairowan is built outside the walls, and consists of a station, two hotels, the house of the "controleur civile," the post-office, and the houses of the various officials. Kairowan has a population of over 20,000; but, owing to the life in the streets, a stranger would say twice as many inhabitants.

THE ARABS ARE LOVERS OF JASMINE

The souks resemble those of Tunis on a smaller scale, and are picturesque. The end of June, about the time the sun sets countless Arabs carry about in large, platter-shaped baskets small packages wrapped in fig leaves—"jasmine; sweet, fragrant jasmine." Every Arab, rich and poor, day laborer or native prince, stops and buys for 10 centimes (2 cents) a small package, made of a fig leaf folded over three times and fastened together by a straw of esparto grass. On opening, an exquisite perfume exhales and one finds a large bunch of jasmine buds of delicate pink. The moisture of the fig leaves keeps them absolutely fresh and the buds from opening.

A blacksmith, busy at his forge, will stop shoeing a mule to run out and buy a big bunch of jasmine. He will fasten the stem in his turban or over his ear and return to his work, singing in a quaint minor key, and the words are:

"We render thanks to Allah for sending rain to make the crops grow and the flowers to bloom."

The youth apprenticed to the black-

Photo by Lehnert & Landrock

THE WAY ARABS WEAR FLOWERS: IN THEIR TURBANS OR STUCK OVER ONE EAR

(SEE PAGE 1089)

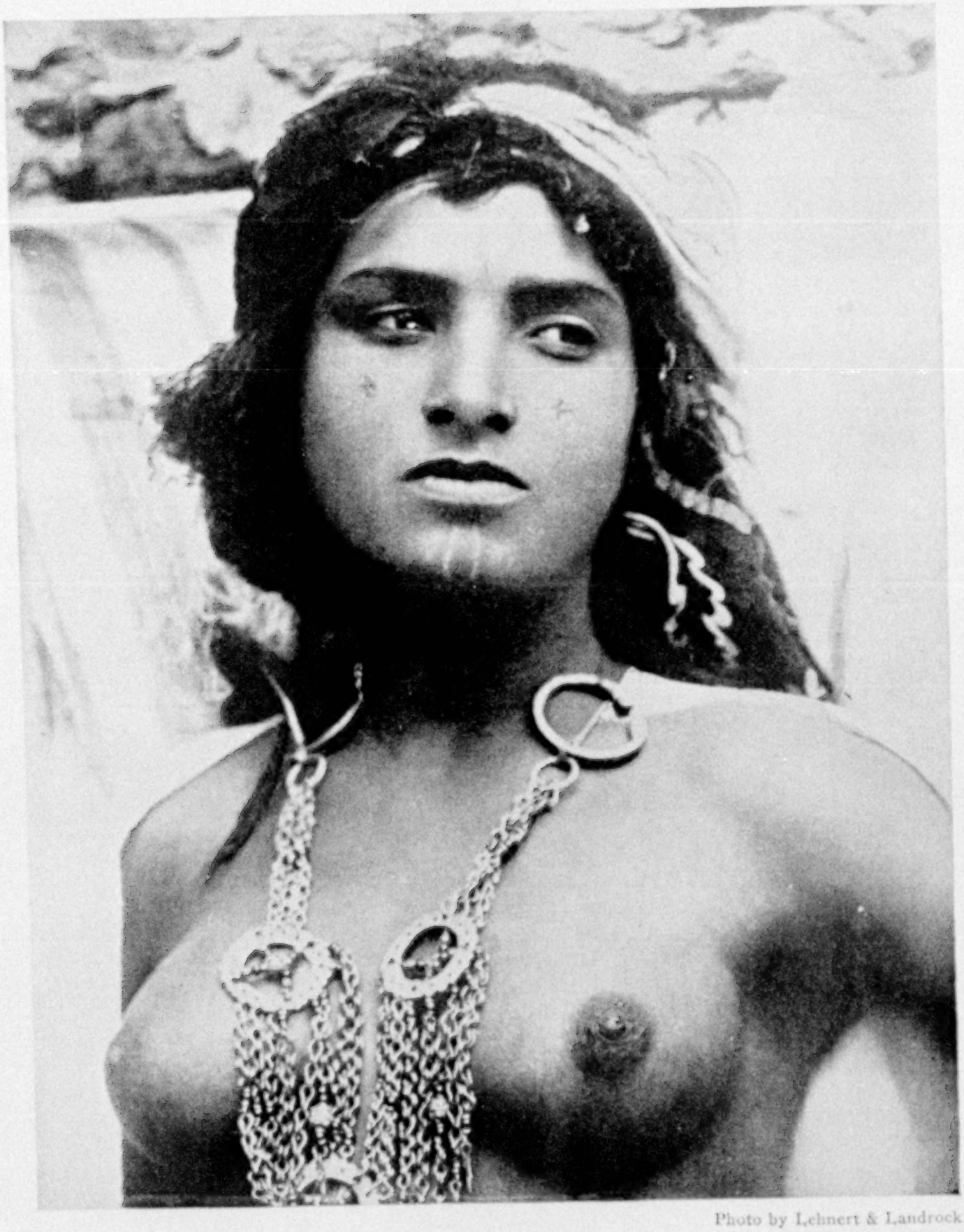


Photo by Lehnert & Landrock

A NOMAD GIRL OF THE SOUTH

Photo by Lehnert & Landrock

INTERIOR OF AN ARAB HOUSE: KAIROWAN

smith takes up the chorus as he works his Oriental bellows, and in a few moments the entire street of blacksmiths has joined in this weird song.

The Arab merchant showing me Kairowan rugs would point up and say: "Nothing so beautiful as the blue sky, bright sunshine, and the perfume of flowers"; whereupon he would inhale the jasmine and say: "The most beautiful mosque of Mecca, Damascus, or Kairowan is not half as beautiful as the vaulted blue of the sky to worship God in."

We of the West have much to learn of the East; the faith of a Mohammedan is sublime, and makes a nomad of the Sahara feel equal to any sultan, and his carriage and manners that of a prince. His only dwelling is a tent made of crude cloth of camels' and goats' hair; his only drink, water (brackish) and goats' milk; his food, dried dates, locusts, and a little barley; his only perfumes, tar, gazelle, and the few small flowers that bloom in the Sahara and that he uses also as medicine.

Before his tent is hobbled his horse and some camels. In the tent is a large wooden chest, some copper pots and pans, and a few oil jars. No furniture encumbers the interior. He can break camp in half an hour and move to some other spot with his wives and children. For a pastime he can hunt the gazelle and ostrich.

He is absolutely happy and thanks God five times a day for all his blessings and the beauty and liberty of his Sahara home.

Photo by Rollin T. Chamberlin

THE MILITARY ESCORT WHICH ACCOMPANIED US INTO THE SZECHUAN ALPS: THEY WERE SENT BY THE MAGISTRATE AT PI HSIEN TO SEE THAT NO HARM BEFELL US ON THE JOURNEY (SEE PAGE 1111)

POPULOUS AND BEAUTIFUL SZECHUAN

A Visit to the Restless Province of China, in which the Present Revolution Began

By Rollin T. Chamberlin

OF THE eighteen provinces of China, Szechuan is at once the largest, the most populous, in many respects the richest, and altogether the most picturesque and beautiful. This fair and far interior province, lying between the 26th and 34th parallels and extending from 98° to 110° east longitude, spans a latitudinal range little short of Florida and Georgia taken together and lies nearly antipodal to them in longitude. Its area of 181,000 square miles bears a population estimated at 50,000,000 to 70,000,000 (see map, page 1097).

The political bounds of Szechuan have been gradually shifted westward at the expense of Tibet, so that it now embraces the high mountains that border the Tibetan plateau, and these have thus come to be known as the Szechuan Alps. By this extension the western edge of Szechuan laps well up on the border of that great elevated tract of south central Asia which is the world's most declared expression of the stupendous deformative movements of the later Tertiary times. It is, however, only the ragged upturned eastern edge of the great elevation that is embraced in Szechuan; the plateau mass still lies in Tibet. As a result of these deformative movements, the surface of Szechuan has been divided into two portions of rather strikingly different aspect.

The western part, comprising somewhat more than half the entire area, is characterized by a remarkable parallelism of lofty ridges. Deeply sunken between these lie profound valleys and precipitous gorges, through which course the upper branches of several of the great rivers of southeastern Asia. On the summits of the ridges stand forth some of the grandest mountain peaks of the globe.

The eastern portion of Szechuan is accidented by much lower, even-crested mountain ranges trending northeast-southwest. Between these ranges lie open plains, butte areas, or broad hill tracts, giving the intermontane basins a general park-like aspect. The flat-topped parallel mountain ranges are highest and most prominent near the eastern edge of the province, where the Yang-tse Kiang in cutting through them has formed its famous series of gorges.

In general structure and aspect these eastern Szechuan ranges call strongly to mind our own Appalachian Mountains. Westward of the gorge ranges, toward the center of the province, the mountains generally die away and give place to picturesque red buttes. These are so prevalent and dominating and their coloration so marked that this central portion of the province has come to be known as the Red Basin of Szechuan.

THE CHENGTU PLAIN

Heading far up in the recesses of the Szechuan Alps, the Min River cascades down a deep valley until it reaches the east edge of the mountains, when it turns southward along their flank. At the debouchure of the Min from the high mountains there lies a very remarkable plain, which might well have taken its name from the river, but which in reality took it from the capital of the province, Chengtu. Geographic names do not always follow the law of cause and effect; the river made the plain, and the plain made the city, but the city gave it the name.

The greatest dimension of the plain, some 70 miles, lies along the mountain front, while it stretches away from the mountains perhaps 40 miles southeastward. From its southeastern border this unique plain rises gradually but steadily toward the mountains or, more specifically, toward the mountainous gateway from which the Min River debouches at

Photo by Rollin T. Chamberlin

A BAMBOO SUSPENSION BRIDGE IN THE SZECHUAN ALPS

Kuan Hsien. As one coming from the southeast approaches the head of the plain at this debouchure, he finds himself stepping up at intervals from lower to higher broad platforms, or plain-like terraces, over the edges of which the rapid streamlets of the wonderful system of irrigation tumble in miniature falls.

These low terraces and the general slope of the area give the key to the mode of formation of the entire plain. It is clear that it is one immense flattened alluvial fan, spread from the debouchure of the Min over all the lower tract between the Szechuan Alps on the west and the buttes and sub-mountains to the east, burying the minor undulations under its great volume of alluvium.

Springing among the lofty peaks of the Szechuan Alps, the Min River rushes down its montane trough to its portal through the "Azure Wall," the last mountain rampart at Kuan Hsien. Once out of the mountains its wild plunging is checked, its carrying power is reduced, and in its less turbulent journey beyond it throws down, as a burden no longer bearable, its boulders, cobbles, gravels, sands, and silts, the abrasive tools with which it has been cutting deeper its trough through the rough country.

Thus in the course of recent geologic times it built up the great sloping plain, and laid the foundation for one of the loveliest garden spots on earth.

INTRICATE IRRIGATING TRENCHES DEVISED 2,100 YEARS AGO

Favored with a naturally rich alluvial soil, this plain must centuries ago, even in its primitive state, have presented rare attractions to the Chinese immigrants from Shansi. But since its early settling the genius of the Chinese has vastly bettered its condition and increased its productiveness. The fundamental improve-

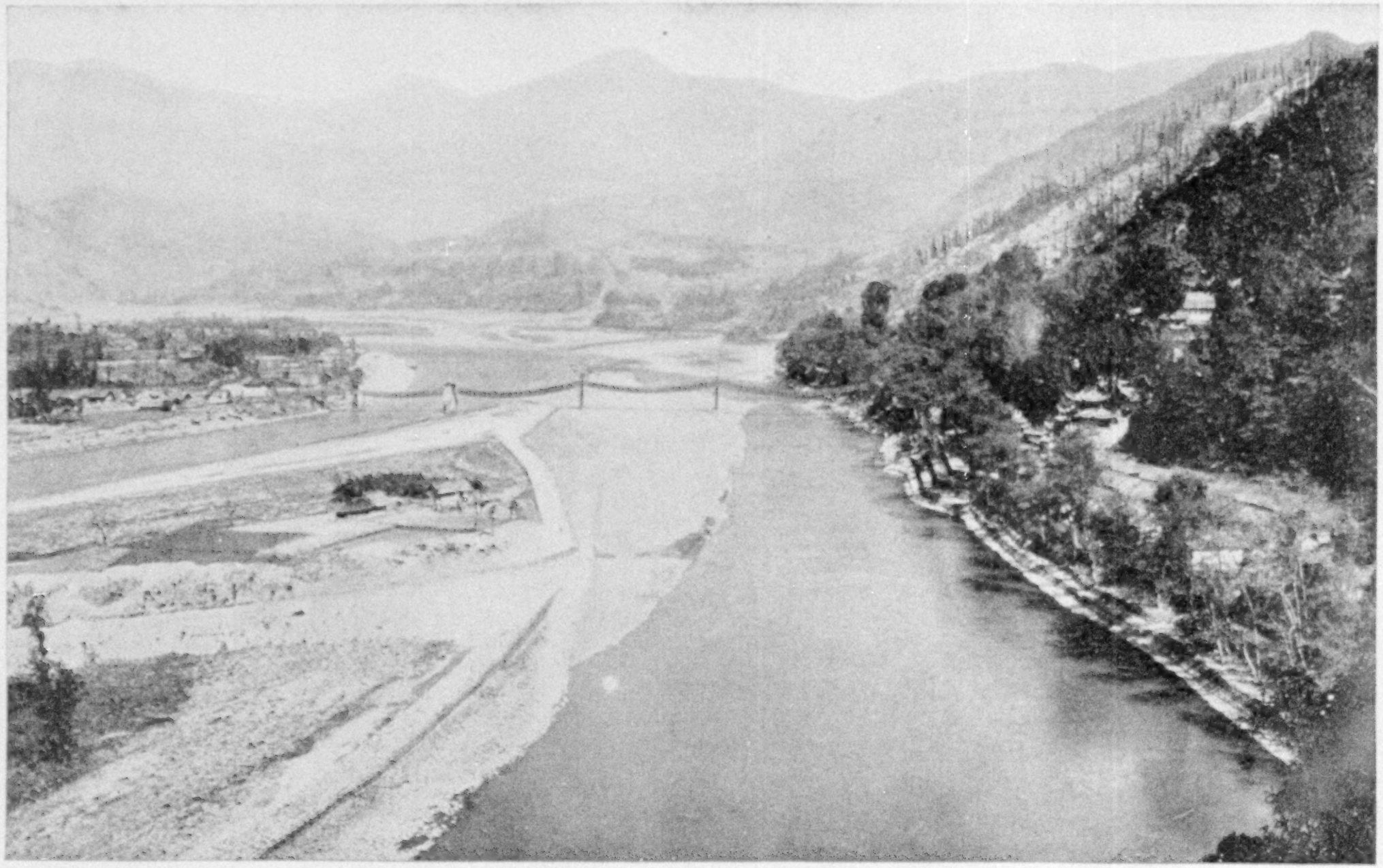
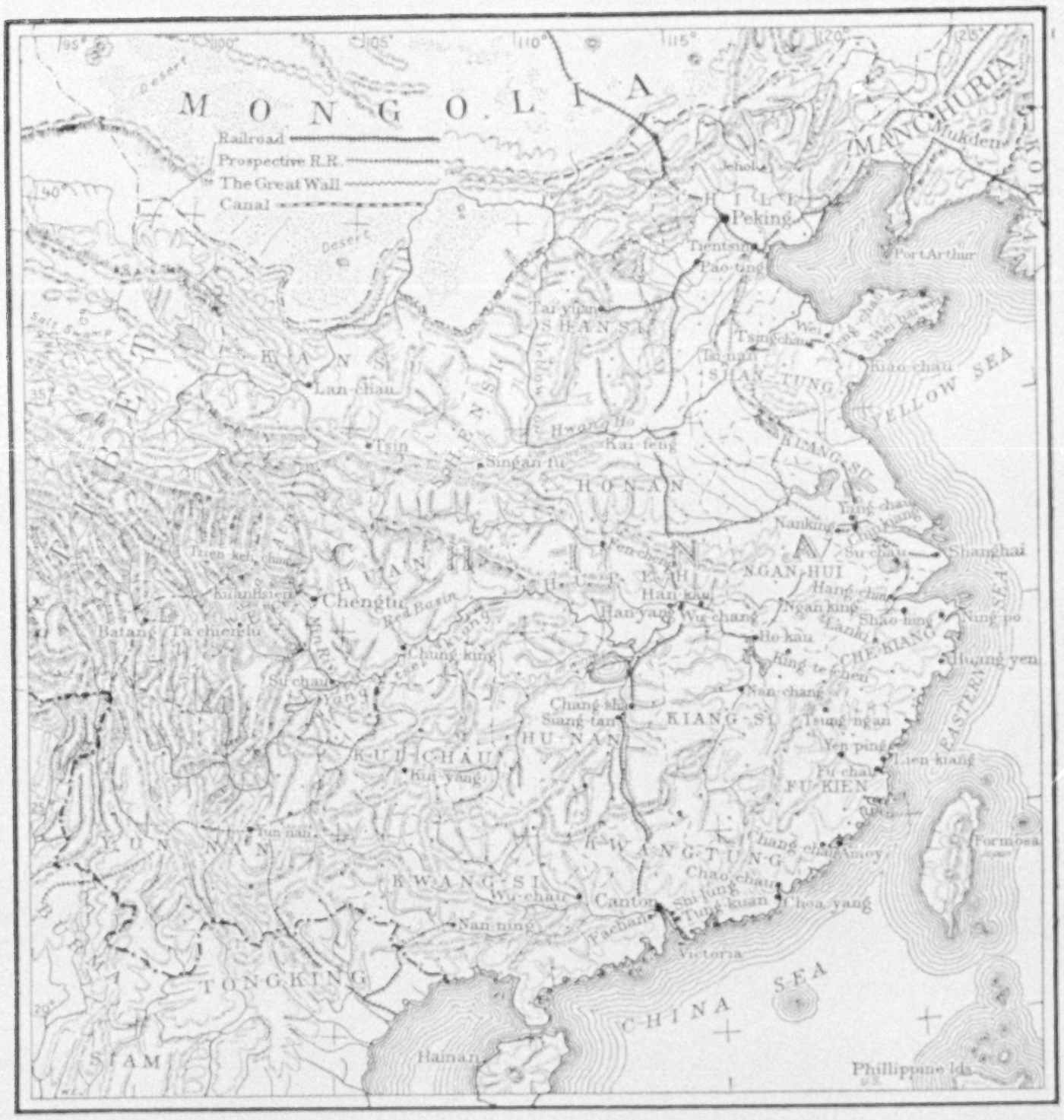


Photo by Rollin T. Chamberlin

THE CONTROLLING WORKS OF THE INGENIOUS IRRIGATING SYSTEM WHICH WATERS THE CHENGTU PLAIN (SEE PAGE 1097)

On the left is the Min River; on the right the main irrigation stream. This work, one of the wonders of the world, was accomplished by Li Ping, an engineer who lived 2,100 years ago. The fine grove of trees on the hillside above the irrigation stream surrounds the magnificent temple which is dedicated to this able engineer. Several of its pavilions may be seen in the picture.



OUTLINE MAP OF CHINA, SHOWING SZECHUAN

ment lay chiefly in devising an exceedingly intricate plexus of irrigation trenches, which spread the waters of the Min River far and wide over the plain. The system was admirably designed and skilfully executed. Though the natural difficulties were not a few nor slight, even from the viewpoint of an engineer of the present day, the work was successfully accomplished by Li Ping, a Chinese engineer who lived 2,100 years ago.

The controlling works at Kuan Hsien are the key to the whole irrigating system. Here a movable and adaptable dam or jetty, consisting primarily of boulders ingeniously wrapped in bamboo strips, so as to form long cylindrical wicker baskets, is so placed, when the time comes for turning the water into the trenches, as to deflect about half of the Min River into the head of the irrigation system. After flowing a short distance, this main irrigation stream is divided into two branches, each of which is later subdivided, and so on until each field throughout the plain is reached by the

Photo by Rollin T. Chamberlin

GRAVES ABOUND EVERYWHERE IN CHINA: MOST OF THEM ARE CIRCULAR, OR CONICAL, MOUNDS OF EARTH: ONLY A FEW HAVE TOMBSTONES

Photo by Rollin T. Chamberlin

THE VEGETABLE GROWTH ON THE CHENGTU PLAIN IS EXTREMELY LUXURIANT

As it is one of the most productive, so the Chengtu plain is one of the most densely populated tracts on the face of the globe. Save the ground occupied by the graves, no land is allowed to go to waste. The farms are crowded in so densely and are so assiduously worked that the fields look more like garden plots than open country farms (see page 1102).

water. From April till November, during the season of floods from the mountains, the water is directed into these trenches.

Without such an adaptable system to take care of the great increase of water in the summer season, the stream would frequently shift its course and carry devastation with it. To realize the protective value of this work, one has only to compare with it the unharnessed Hwang Ho, whose tragic appellation, "China's Sorrow," fittingly expresses the great disasters which have attended its wild migrations across the eastern plain of China.

Li Ping, who originally devised this irrigation project, did not live to see its completion, but his plans were carried out and extended by his son. In honor of these two able hydraulic engineers, whose well-directed labors have brought untold blessings to the many millions of people dependent upon the produce of the Chengtu plain since their day, there has been erected just outside the walls of Kuan Hsien a beautiful temple, facing the scene of Li's great triumph. Its base, with singular propriety, rests close to the water's edge, just opposite the long jetty which taps the main stream. Thence, in a succession of pavilions, or separate temples, the terraced structure reaches tier above tier high up the mountain slope (see page 1096).

These pavilions are built and decorated in the highest style of Chinese art, and, what is unusual if not quite remarkable in China, the edifice and everything connected with it are kept in an excellent state of repair. The total effect of the assembled pavilions stretching up the moun-

Photo by Rollin T. Chamberlin

CHENGTU WATERWORKS

The buckets on the wheel dip up water from the stream, and later, when near the highest point of a revolution, pour it into a trough, from which a pipe conveys it to the reservoir. The wheel is turned by the force of the stream.

THE RICE FIELDS ARE ALWAYS PLOWED WITH THE HELP OF THE WATER BUFFALO: THE PLOW IS OF PRIMITIVE DESIGN AND OF WOOD

Photo by Rollin T. Chamberlin

WHEELING THE PRODUCE OF THE FIELDS INTO CHENGTU

"We passed an almost continuous procession of half-naked, perspiring men, pushing sacks of grain on wheelbarrows toward Chengtu. Other wheelbarrows were loaded with large cakes of coke from the mines and coke-ovens along the Min River, near Kuan Hsien" (p. 1109).

tain side is truly impressive, and sets forth in a vivid way the almost worshipful reverence which the Chinese entertain for those whose labors have conferred lasting benefits on the community. We remember no finer temple in all China.

ONE OF THE MOST PRODUCTIVE REGIONS IN THE WORLD

With rich soil, thus splendidly watered, and a mild climate, the Chengtu plain is made to yield as many as three or even, by special handling, four or five crops a year. Rice is the staple summer crop and is, of course, grown in flooded fields. It is preceded by the poppy and the rape flower, which thrive in March and April, and followed in the fall by wheat, maize, barley, and buckwheat. Peas and beans are grown at various seasons of the year and are often planted between the rows or hills of other crops, especially wheat. This is partly to economize space, but also because the Chinaman fully appreciates what a benefit the cereal derives from the legume. In those fields where beans were grown amid the wheat, the latter almost always appeared much thriftier than in the fields where it was grown alone.

When a Chinese farmer was asked why he planted the beans in with the wheat he responded, "Because it improves the crops." Upon inquiring as to which crop, beans or wheat, was improved by the combination, his answer was, "Both." It may be that the Chinese farmer was right, and that the legume derives specific benefit from the cereal, as well as the cereal from the legume, for the Chinese have been experimenting for many centuries, being keen observers.

XUM

Photo by Rollin T. Chamberlin

NATIVE MODE OF TRAVEL: NOTE THE IRRIGATING CANAL FROM THE MIN RIVER

Cotton, sugar-cane, tobacco, madder, oranges, and persimmons are also raised. But the favorite crop during our visit in March and April was clearly the rape, or yellow mustard. It is raised in vast quantities for the oil which it yields. In early April, when the rape is in full bloom, its brilliant yellow flowers, growing on all sides in the greatest profusion as far as the eye can see, give the impression of soil culture developed to its maximum. The only land which is not pushed to the limit of high culture is that occupied by graves. As everywhere else in China, the graves cover very considerable areas.

Fields of poppy are now only to be seen here and there in those districts where the magistrates are somewhat lax in enforcing the laws. Since the use of opium and the growth of the poppy were prohibited by imperial edict, the poppy has nearly disappeared from the Chinese landscape. Only a few years ago it is said to have been very extensively cultivated, but now China is making a determined effort to rid herself of the opium curse.

PEOPLE ABOUND EVERYWHERE

As it is one of the most productive, so the Chengtu plain is one of the most densely populated tracts on the face of the globe. Save the ground occupied by the graves, no land is allowed to go to waste. The farms are crowded in so densely and are so assiduously worked that the fields look more like garden plots than open country farms. Because of the luxuriance of the crops, land is said to be worth approximately twice as much as in most other parts of agricultural Szechuan.

People abound everywhere; they are

Photo by Rollin T. Chamberlin

A STREET SCENE IN CHENGTU; THE GROOVES IN THE PAVEMENT WERE WORN BY THE WHEELBARROWS

scattered over the fields; they move in steady processions along the main roads; they swarm in the numerous villages. The people in the fields labor long and hard, but their lot looks easier than that of the coolies on the roadways, who toil along all day under heavy loads, or push heavily laden, squeaky wheelbarrows on dusty highways. The Chinese wheelbarrow is the local transportation specialty for passenger and freight alike. It is not the lower classes of Chinese who are pushed along these dusty roads in the squeaky wheelbarrows. The lower classes walk. It is the leading citizen and the bespectacled scholar who travels in this noisy, dusty, and undignified style.

The freight traffic on the roadways leading into Chengtu is heavy. Produce from the various farm districts is wheeled into the capital by perspiring coolies. Other coolies carry their burdens in baskets suspended from the ends of a flat pole balanced upon the shoulder. The latter method is almost universal in south and central China. Equipped in this way, a coolie will walk all day long under a load of 40 pounds in each of his two baskets and cover 25 or 30 miles of mountainous road without apparent fatigue. On a journey he will keep this up for several weeks at a stretch. Though generally not large of frame, these men are marvels of physical endurance.

CHENGTU IS ONE OF THE FINEST OF CHINA'S CITIES

Chengtu, the metropolis of this plain and likewise the capital of the province, is, with the possible exception of Peking, perhaps the finest city of China. At one time it was one of the three capitals of the Empire. And it is now the seat of a viceroy, for Szechuan, on account of its size and importance, has a viceroy all to itself. Chihli, in which the two great cities of Peking and Tientsin are located, is the only other single province so favored.

The city itself, inclosed by a massive

THE GREAT EAST STREET IN CHENGTU

Photo by Rollin T. Chamberlin

Silk stores are very conspicuous along this street, for Chengtu is a noted silk center. The three parallel grooves in the middle of the street are the tracks used for the wheelbarrows. The present revolution in China began at Chengtu. (See article by Frederick McCormick in this number.)

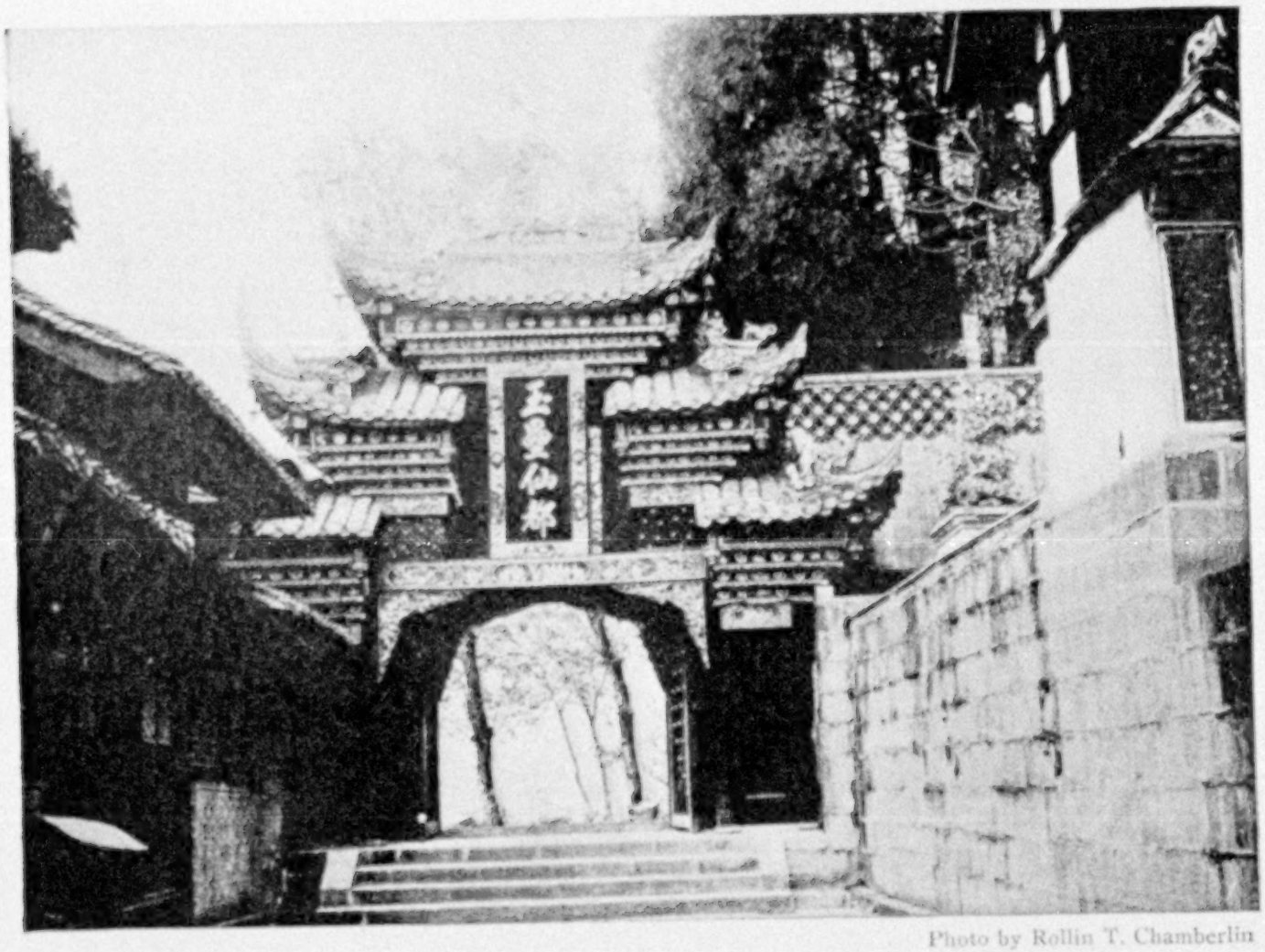


Photo by Rollin T. Chamberlin

A GATEWAY TO A TEMPLE: CHENGTU

wall 9 miles in circumference, consists in reality of two distinct cities of widely different aspect. They are the Chinese city and the Manchu or Tartar quarter. A high wall separates them. From one end of China to the other there are no greater contrasts in architecture, in the appearance of the streets, or in the general plan of cities than are displayed on opposite sides of this Chengtu wall. Szechuan styles, characteristic of west and south China, prevail on the sunny side, while the Tartar inhabitants of the northern half of the city have patterned everything after their native Manchuria.

Toward the middle of the seventeenth century the Manchus from the north invaded China and, overthrowing the Ming dynasty, established their leader, Shun Chih, upon the dragon throne at Peking in 1644. Since then China has been ruled by Manchu emperors, and its people have worn the queue in token of their subjugation. The invading Tartars, after massacring many of the unfortunate Szechuanese, were so captivated by the natural charm of the region that they settled down as a foreign garrison. It is the descendants of these original invaders who inhabit today the Manchu city of Chengtu. They are pensioners of the nation.

The Chinese quarter of Chengtu, like most cities in China south of the Hwang Ho, is very compactly built. The houses and shops are set in close and the streets are narrow. Viewed from a height, such as the tall tower of the American Methodist hospital, the city presents an almost continuous mass of tile roofs, interrupted here and there only by foliage.

The streets are so narrow and are spaced so far apart that they almost escape detection in the general view. Though so narrow from the Occidental standpoint, these streets of Chengtu are,

Photo by Rollin T. Chamberlin

A BASEBALL GAME ON THE NEW CAMPUS OF THE WEST CHINA UNIVERSITY

It is located just outside the walls of Chengtu. Coached by some of the missionaries, the Szechuanese students have become quite proficient in the American national game (see page 1107).

nevertheless, notably wider than those of Canton, or native Shanghai, and far more attractive. The principal avenues of traffic are all paved with slabs of stone, and, what is quite unusual in Chinese cities, they are now kept remarkably clean under the orders of an efficient chief of police.

Marco Polo saw a Chengtu well laid out and paved just like the present city. A stone bridge across a tiny creek in the heart of the city stands today just as he described it back in the reign of Kublai Khan.

But the clean streets appear to be a recent innovation due to the enterprise of a young Chinese named Chow, who was till recently chief of police, but who has since become head of the industrial department. While chief of police he reorganized that department, put in operation a system of street cleaning, a system of street lighting, and took the beggars off the streets, putting the adults to work and sending the children to a school which he organized for the purpose. The result is, for China, a remarkably clean and attractive city.

Parallel grooves in the middle of the streets quickly catch the traveler's eye. These ruts have been slowly worn in the stone pavements by the wheelbarrows, which here do service in place of the street cars, carriages, and wagons of European and American cities.

The streets are lined on either side with shops and blank walls, broken by occasional entrances. The shops have open fronts and display counters fronting right on the street, so that the stock in trade may be viewed by passers-by and bargaining done without leaving the street.

But back from the street, whether it is

Photo by Rollin T. Chamberlin

ROADWAY ARCHES

lined with shops or a blank wall, lie mazes of courts one after another, bordered by rooms opening out upon them. It is to give space for this system of ramifying interior courts that the main streets are placed so far apart. The charm of a Chinese city is thus not in its exterior, not in the face it sets to the street, the public, or the stranger, but in the inner courts, the recesses of its dwelling places. Chinese civilization centers on the family.

THE NEW UNIVERSITY

But the attractions of Chengtu are not wholly physical. Its new intellectual attitude is one of its most inviting features. It has reason to be proud of a new university, shaped on modern lines and rapidly growing into place and influence under the patronage of the government. To this is added a second university, now building under the generous coöperation of five missionary bodies, and taking shape, under western religious and scientific direction, on broad and liberal lines. The generous spirit and genial relations of these Chinese and Christian educational endeavors is a model for other lands, and though there is as yet but a beginning of the higher and better education, it promises to be the beginning of great as well as good things.

A TRIP INTO THE SZECHUAN ALPS

Time in Chengtu was precious to us for educational inquiries, but the call of the nearby Szechuan Alps was too strong to be put aside by geologists, and so a morning of early April found us traversing the Manchu city and leaving Chengtu by the west gate. We were late in starting, due to the inevitable delay in bringing together the coolies to carry the chairs and baggage, adjusting the porter loads, and arranging and starting the caravan.

Furthermore, when just outside the

Photos by Rollin T. Chamberlin

CHENGTU SEWAGE SYSTEM

ONE OF THE FEW POPPY FIELDS REMAINING IN THIS PORTION OF SZECHUAN: THE FLOWERS ARE EITHER PINK OR WHITE

Photo by Rollin T. Chamberlin

AN ENTRANCE TO A VILLAGE

city gate, the coolies laid down the chairs and demanded one-third of their day's wages. Warned that this would happen, a few pounds of copper cash were ready for them, but to apportion this among fourteen coolies, with much talk and argumentation, consumed valuable time. The coolies also found it necessary to eat a bowl of rice apiece to fortify themselves against the hard day's work ahead. All this added to the delay, and it was freely predicted that we would never cover the 35 miles to Kuan Hsien before the gates of that city closed for the night.

But the initial troubles of transportation rapidly faded before the amazing beauty of the Chengtu plain. I think I have nowhere witnessed a moving scene more consistently charming, more sustained in its fascination, or firmer in its hold on the mind's fancy than the succession of vistas of rural Szechuan as they greeted us in succession on this perfect April day. Vast quantities of rape were in bloom, giving a mosaic of a bright yellow and green to the landscape. Though only early April, the air was balmy and genial. It was even a trifle too warm to please the hard-working coolies on the road.

We passed an almost continuous procession of half naked, perspiring men, pushing sacks of grain on wheelbarrows toward Chengtu. Other wheelbarrows were loaded with large cakes of coke from the mines and coke ovens along the Min River, near Kuan Hsien. Other wheeled loads and occasional fine ponies and, rarer still for central China, nice cattle gave variety to the highway procession. The extent of this road traffic implied great industrial activity on the part of the people of this portion of China.

All day long we hurried over the well-traveled road, upon what appeared to the eye to be a nearly level plain. In reality it steadily rose in altitude, if the barometer spoke truly, as it surely did; indeed the aneroid indicated a rise of 700 feet between Chengtu and Kuan Hsien. At

Photo by Rollin T. Chamberlin

A GROUP OF GIRLS WHO WERE PICKING FLOWERS UNTIL FRIGHTENED BY OUR KODAK

Photo by Rollin T. Chamberlin

ALL BAGGAGE GOES BY COOLIE: THIS ONE IS CARRYING THREE HEAVY AMERICAN SUIT-CASES, AND SOME SMALLER TRAPS IN ADDITION

Equipped in this way, a coolie will walk all day long under a load of 40 pounds in each of his two baskets and cover 25 or 30 miles of mountainous road without apparent fatigue. On a journey he will keep this up for several weeks at a stretch. Though generally not large of frame, these men are marvels of physical endurance (see page 1103).

Photo by Rollin T. Chamberlin

ANOTHER METHOD OF CARRYING A LOAD AMONG THE SZECHUAN ALPS

many points there was a great deal of gravel exposed in the irrigation ditches, hinting at swift currents. And after passing Pi Hsien, our lunch point, we often saw piles of large water-worn stones in the fields. In the middle of the afternoon the gradient of the sloping plain increased noticeably, so that we became conscious of rising. The irrigation streams descended many short falls at points where there had been slight terracing.

We pushed on as fast as we could go throughout the afternoon. At length there slowly took form out of the twilight haze the rugged outline of the Azure Wall, the mountain front. Szechuan's famous veil of blue haze had hidden the mountains till we were almost among them, so that our goal was never in view. We had already begun to feel some apprehensions for our night's lodging, for in Chengtu the city gates close promptly at dusk, and we had been led to believe that such was also the custom at Kuan Hsien.

If the traveler, native or foreign, is so unfortunate as to be unable to reach the gate before it is formally closed he must pass the night outside the walls. At sundown we were still many li from Kuan Hsien, and so Mr. Wang, the Chinese student traveling with us, hastened on ahead in our lightest mountain chair, with intent to make special plea of the gate-keeper and secure our entry into the city. Reaching the south gate of Kuan Hsien, in total darkness, at 7.45 p. m., he found the portal wide open and our fears quite vain. As the remainder of the caravan straggled in we learned, too late to get any comfort out of it, that the gates of this city did not close until 10 o'clock.

Photo by Rollin T. Chamberlin

CHENGTU RAPID TRANSIT: MR. WANG (OUR INTERPRETER) ESSAYS THE WHEELBARROW ON A JOURNEY INTO THE SZECHUAN ALPS

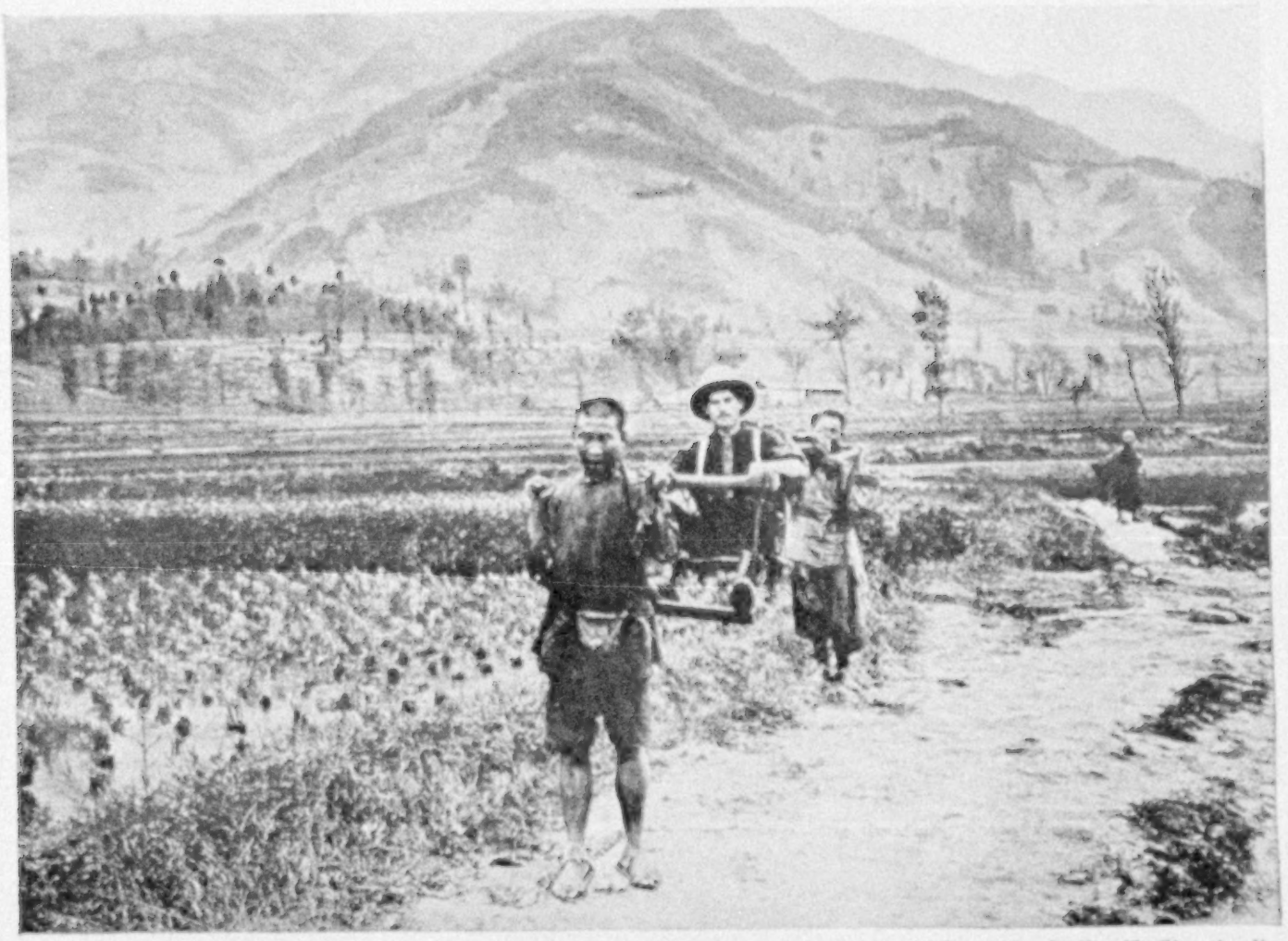


Photo by Rollin T. Chamberlin

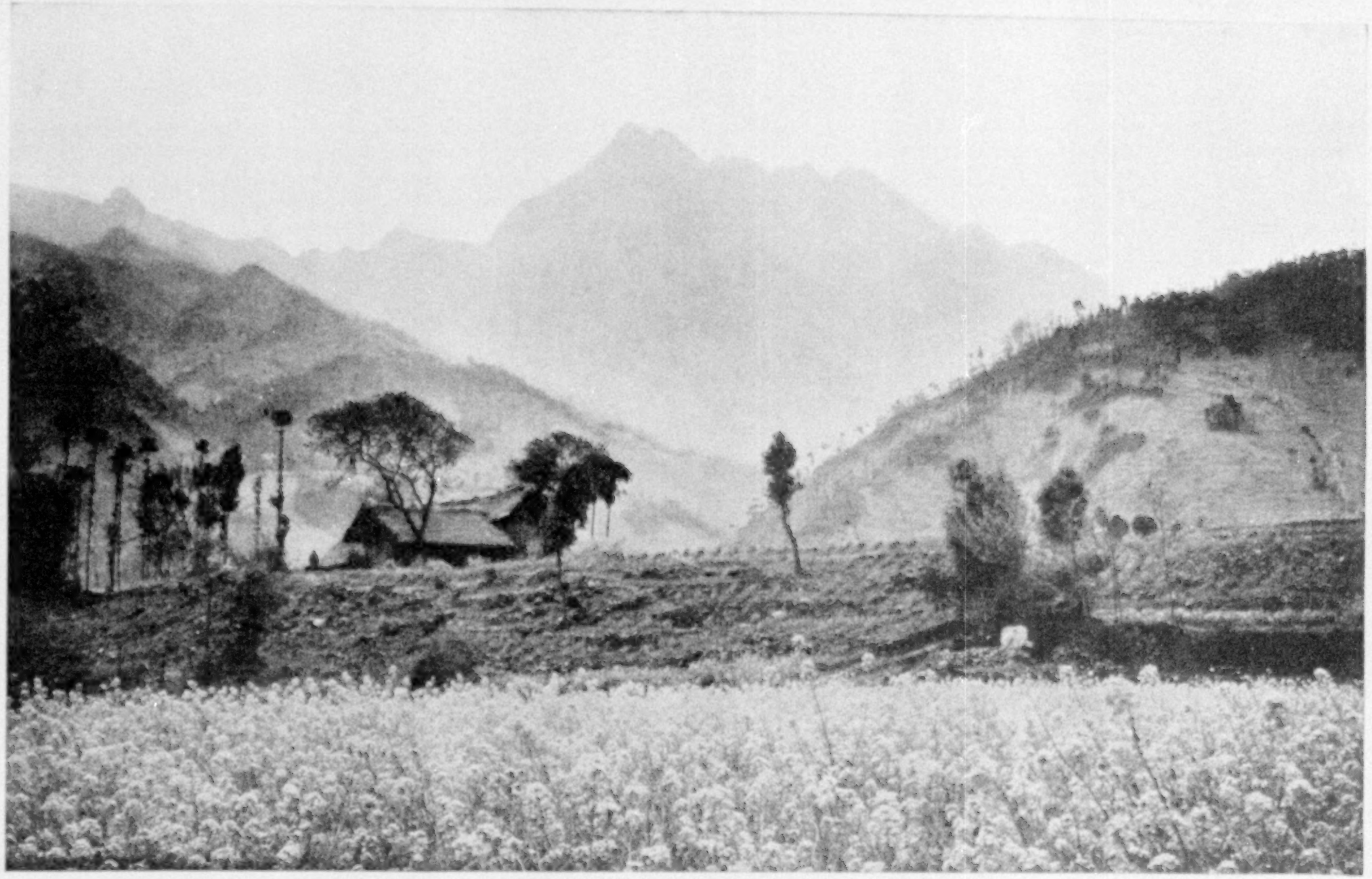
A LIGHT CHAIR SPECIALLY CONSTRUCTED FOR TRAVEL IN THE MOUNTAINS

Travel in it was speedier than in the ordinary sedan, but it was not comfortable for more than an hour at a stretch

A CHINESE TOWN

The Chinese inn at Kuan Hsien ranked among the better class of Szechuanese inns. Its provisions and accommodations were in no essential way different from or more extensive than those of other inns of its class. Its principal features were the walls, the roof, the floor, a few chairs and benches, and a small dining-table. The traveler in this country always takes with him his own provisions, a cook to prepare his meals, and his own bedding for the night. The inn simply provides a place where he may camp; for, on account of the extreme degree to which all available land is cultivated, there is not room outdoors on which a traveler may camp.

The hard journey of the first day, or its suggestion of too strenuous travelers, proved unpalatable to about half of our chairmen and carriers, and they gave up their tasks and returned to Chengtu. On account of the general prosperity of this region, together with an apparent abundance of work to keep the inhabitants employed, our fu-to, or head coolie, found it difficult to engage men to replace the deserters, and it was 8.45 a. m. before we were able to leave the inn. Such a scarcity of unemployed men here impressed us all the more forcibly when we recalled how frequently local coolies had bid low, and even scrapped, for the chance to relieve our chairmen on the overland journey from Wan Hsien to Chengtu, across eastern Szechuan. This seemed a fact of some significance as an index to the economic conditions and the relative prosperity of these districts.



A SERRATE PEAK OF THE FRONT RANGE OF THE SZECHUAN ALPS

Photo by Rollin T. Chamberlin

The yellow rape, or yellow mustard, seen in the foreground, thrives even in the mountainous region. The rape is raised in vast quantities for the oil which it yields. "At length there slowly took form out of the twilight haze the rugged outline of the Azure Wall, the mountain front" (see page 1111).

Photo by Rollin T. Chamberlin

A WOMAN SMOKING A PIPE IN A VILLAGE NEAR PI HSIEN: NOTE THE WHEELBARROW

Kuan Hsien is located at the immediate foot of the front range, which the imaginative natives have styled the Azure Wall. One begins hill climbing even before passing out of the city gate on the Alpine side. The city wall runs along a steep hogback ridge, which extends from the mountain side to the river's edge, where it has been cut off sharply in a nearly vertical cliff. This ridge is due to the resistance of a hard reddish conglomerate, which stands at a high angle and marks the border of the mountain folds. The strata, which beneath the Chengtu plain lie essentially horizontal, are suddenly and sharply upturned at Kuan Hsien, and give rise to the front ranges of tilted sedimentary rocks, behind which rise the loftier granite peaks that form the heart of the Szechuan Alps.

We passed over the frontal ridge and followed the east bank of the Min to the magnificent temple, commemorating the two engineers Li, which I have already mentioned. Close by the temple, we crossed the river on a suspension bridge of a pattern common enough in the mountains of China, but unique to an American. It consisted of a swaying boardwalk, supported by heavy bamboo ropes suspended on stone towers. Four loops were required to span the broad Min. Just above the bridge is the dam of wicketed bowlders, annually renewed, which controls the system of irrigation for the plain of Chengtu (see p. 1096).

Continuing upstream, on the west bank of the river, we found the strata all standing nearly vertically, with the Min crossing the hard resistant formations near Kuan Hsien nearly normal to their strike and flowing southeastward, as it does also on the plains beyond. But after a couple of miles of resistant beds a much softer formation follows in the

Photo by Rollin T. Chamberlin

OPEN-AIR THEATER AT HSING CHANG, NEAR KUAN HSIEN

The actors are doing their best to hold the attention of the audience, but the audience is vastly more interested in the American photographer, who slipped up quietly with the hope of getting a picture of the performers on the stage.

stratigraphic succession. This sharp change in the formation is rendered conspicuous by a right-angled bend in the river. For perhaps five miles above the river flows along the strike of the soft layer in a northeasterly direction because of its easy erosion, but on encountering the hard frontal strata it turns sharply across them.

Our purpose being to penetrate into the mountains as far as possible in the brief time available to see what we could of the structure of the ranges, the journey along the strike was far from welcome; but we could only follow the river, for the back country is extremely rugged and can be traversed only with much difficulty. Close to the river bend the tunnels of three coal mines penetrate the canyon wall. The average thickness of the coal seam in the three mines is said to be only about a foot and a half. Just beyond the river bend are large lime kilns. The natives were also seen to be washing the river sands for gold.

Beyond the great bend in the river we followed a winding hillside path, now high above the rushing stream, now down near the water for most of the afternoon. The river was found to follow the strike rather closely, shifting from one set of weak layers to others as advantage offered. The left mountain wall is formed of a great rock face of gray metamorphosed limestone standing in steep beds, which are even overturned so as to dip toward the northwest. Specimens of the genus Productus, found in

Photo by Rollin T. Chamberlin

At every village through which a foreign caravan passes the natives swarm about the sedan chairs to catch glimpses of the curious passengers. They are generally highly amused and very seldom show any signs of animosity toward the stranger.

fragments of this limestone on the right bank, place its age as Carboniferous. Probably this great limestone formation is to be correlated with the thick Wushan limestone of the Yang-tse gorges, which has been described by Willis and Blackwelder.

Late in the afternoon at Tzien Keh Ching a parting of the ways was reached The Min River at this point makes another right-angled turn, and from Tzien Keh back to its source high up in the heart of the Alpine tract the stream maintains a course generally at right angles to the strike of the strata, and thus takes the traveler straight across the structural features of the region.

The rough mountain road, which was leading us southwest along the strike valley, may be followed right on up the valley, which is occupied by a tributary of the Min. This is the route to Ta Lu, Batang, and eventually Lhassa.* Though this road finally leads across the mountain barriers to the great plateau, one day's dash along the strike did not appear promising from our point of view. We preferred to trust to the narrow pathway which follows the main stream above Tzien Keh, in the hope of getting in the short time available the key to the geologic structure of this part of Tibet's eastern mountain border.

Tzien Keh Ching is a typical mountain

*This region is admirably described in the November, 1911, number of the NATIONAL GEOGRAPHIC MAGAZINE by E. H. Wilson, who traveled from Kuan Hsien to Ta Chien Lu.

village. One principal narrow street parallel to the river and lined solidly with shops constitutes the main portion of the village. A swaying bamboo suspension bridge connects the cluster of habitations on the terrace across the river.

Standing forth prominently on the river bank opposite, in the angle between the Min and its tributary, is a picturesque nine-storied pagoda. This is a common sight, for no town of any importance in China would feel secure unless overlooked by at least one of these odd-storied pagodas to ensure it favorable winds and weather. The pagodas that guard the welfare of river towns, as in the present case, are commonly perched upon the most conspicuous point of the opposite bluff, or of the bluffs above or below the town, that they may the better work their beneficent results on the spirits of the air.

To facilitate the next day's dash into the mountains, all of our baggage and the heavy fourman chair were left behind with our servants. Taking only the remaining pair of two-man sedan chairs and eight chair-carriers for relays, our party of three pushed up the valley almost due north across the trend of the mountain structure.

A path amid a wild gorge led us through the great mass of Carboniferous limestone into the more open portion of the valley above, where the older Paleozoic formations of less resistant character have retreated somewhat into mountain slopes before the steady wear of the elements. In this wider portion of the valley a thick mantle of loose rock and vegetal covering obscures the solid rock, which comes to light on the lower slopes only here and there. Wherever the strata could be inspected in place on this hurried trip, the bedding planes, often with ripple-marks, were found to stand nearly vertically or to be slightly overturned. The direction of strike ranged from N. 65° to 70° E.

The persistence of these vertical or very highly dipping beds is quite extraordinary. For mile after mile, as we crossed the axes of folding, their attitude continued unchanged. Finally we came suddenly upon granite which had every appearance of being basal to the series rather than intrusive in it. The valley then narrowed sharply and the country beyond became wild and mountainous.

Three miles onward into the granitic region over a rough trail was the limit of the party's advance. In this distance no very notable change in the character of this basal granitic mass was observed. A scramble of 2,000 feet up the slopes of a prominent peak afforded a general, though not very distant, view of the mountains. The sky, unfortunately, was overcast and the great peaks were enshrouded in the mists. In addition that peculiar but singularly persistent haze which hangs over Szechuan conspired with the clouds to curtail anything like an extensive, sharp-cut panorama.

In the direction from which we had come, the Front Range, those giant hogbacks of nearly vertical, red Permo-Mesozoic grits and conglomerates, was still plainly visible. This hogback ridge rises beyond Tzien Keh in a fine serrate peak to an altitude of about 7,000 feet, or 4,500 feet above the Chengtu plain. The peaks of older Paleozoic rocks in the middle distance were generally less lofty, but, on account of their vertical bedding, they give rise to a rugged topography. But with the insetting of the granite the mountains rapidly increase in magnitude; they give the impression of taking on lines of a larger order.

Viewed toward the northwest, each peak beyond seemed to rise higher than the one in front of it until obscured in the clouds, leaving the rest to be imagined. Mountains which should reach 12,000 feet were seen, and at a distance of some 30 miles further on there are said to be snow-clad peaks towering well over 20,000 feet above the sea.

Structurally the first ranges of the Szechuan Alps which buttress Tibet on the east are the carved remnants of the outer limb of one stupendous anticlinal fold. The other limb must be far away and may not exist, for the structure may consist of a monoclinal flexure. No evi-

Photo from China Inland Mission, Toronto

A GROUP OF CHINESE WOMEN AT SHIH-MEN KAN, YUNNAN, CHINA

Married women who have borne children have their hair done up on top of the head in the shape of a horn

dence of any extensive faulting was noted.

The series of sedimentary formations is very thick. We estimated that between the Triassic red beds, which have been sharply bent upward out of the Chengtu plain, and the basal granite in the mountains, we could scarcely have crossed less than 8 miles of vertically standing sedimentary beds. This would seem to imply a thickness in the neighborhood of 40,000 feet for this part of the stratigraphic column, if there be no unrecognized duplication.

More could not be seen in the scant time at our disposal. We hurried back to Tzien Keh Ching over the winding pathway. Several times it was necessary to cross over the rushing waters of the Min on swaying bamboo suspension bridges, which added to the picturesqueness of travel. Interesting sights and incidents enlivened the way, but our chief need was to get back to educational work at Chengtu as quickly as possible, and we bent our efforts to that end. Two days later we reëntered the beautiful capital of Szechuan.

PRESENT CONDITIONS IN CHINA*

By Frederic McCormick

CHINA is the most interesting and at the same time the most exasperating subject. No two authorities of our time agree about it. Among them a China discussion is a fine chorus of contradiction.

The land of the great wall, ancient porcelain, the pigtail, gunpowder, printing, jade, embroidery; "Kitai," or Cathay, the land of literature and art, the flowery realm of tea and silk, home of the mariner's compass, the Celestial, or, more graphic, Middle Kingdom—this is the playground of rebellion, contagion, famine, violence, death, change, and every event of universal revolution.

Hitherto, war to this realm meant the rebellion of the outer barbarian, as the Han, or Chinese, called his foreign enemies. That is no more. The center has rebelled; China has war within. Such a land in civil strife is, indeed, the land of gunpowder.

China is as large as the United States, lies in the same latitudes, has similar physical characteristics, and the same kind of climate. It looks the same to the traveler until he comes to a walled city, with its pagodas, or meets several people. And several are always to be met with, because there are perhaps 275 million of them altogether.

POPULAR MISCONCEPTIONS ABOUT CHINA

China is populated with human beings. The great head of them (in foreign minds), the late Empress Dowager, called them "my black-haired people." I have lived intimately with them, and for some time was a member of a distinguished Chinese family in Peking. I never ate any rat, nor any cat, nor any dog, to the best of my knowledge and belief. I went frequently, as a dinner guest, to a fine Chinese friend, who always told me, when we sat down at the table (quietly, on the side), that on his last visit to my house he had caught a perfectly bully stray dog in my street, and had saved it up especially for me. His cook, he said, who was a noted one in the neighborhood, had done his best, and the dog would be along in a few minutes.

But I must say that during some years of campaigning in China, such as when the Court was driven out of Peking, when we took the country people by surprise and they did not have time to prepare food for us, we ate such things as we found, and about which I never cared to inquire. And in fact, always, ever after, when this subject comes up, I think right up to that point and stop.

Chinese are honest, like other folks. I always find it necessary to say this, because in a census which I have taken I find it the only subject respecting China of positively universal concern. The question is always asked, and the Chinese and Japanese compared. To the cosmopolitan and to the correspondent it is like asking if the people of L street are more honest than those of M street. Inwardly we know that the question of honesty is the same the world over, and comparisons are impossible.

The Chinese do not all live on rice nor chop suey. More people live on chop suey in New York than in all the Chinese cities I have visited. Chop is English for trade-mark, or sign, and suey means water. I am told that the chop suey is the diagram at the loading line of a ship, and is the invention and peculiar property of Lloyd's, of Great Britain. Such is the identity of this great common heritage which, along with kerosene, cigarettes, flour and religion, and the open door, unites China and America.

The Chinese do not all wear queues, and did not before the cutting of the queue was sanctioned a few years ago. They are not all even of the same

* An address to the National Geographic Society, November 17, 1911.

race, customs, and appearance. Probably one-fifth have angle eyes, such as are frequently found in Anglo-Saxons.

MANCHUS ARE MORE PROGRESSIVE THAN THE CHINESE
(SEE ALSO P. 1135)

They do not all hate the Manchus, who are said to rule them. They rule themselves, and only a few of them ever saw a Manchu or could recognize one. China is what she is because she is Chinese. Reformers have sometimes tried to evade this truth, and in times of rebellious recrimination have shouted it out loud—just as loud as they could.

For several weeks "Down with the Manchus" has been a war-cry in China. It was the war-cry of the Taiping rebellion, and of countless rebellions since, as well as countless rebellions previous—right back to 1644, when the Manchus took the Chinese throne from their Chinese allies. There are no new war-cries in China. The only new cry is the cry of the Western idea in the progressive Chinese, the foreign idea of knowledge and of human life upon this earth and in the hereafter. The same ideas are older in China than in the earth outside China, but the outside has succeeded in impressing a different form of the ideas upon Chinese.

Photo from China Inland Mission, Toronto

MARRIED WOMEN OF YUNNAN (SEE P. 1119)

The Manchus, who hold the throne, have not been caught unawares by revolution. They have given more thought than have others to its meaning and possibilities, dreading the present moment from the days of the Boxer War, when their late Empress Dowager discovered that the progressive Chinese and Manchus were aware of her grave political faults. From that time of the Boxer War until 1908, when she died, she issued, enforced, relaxed, and re-enforced special mandates against the leaders of reform with inexplicable whim, caprice, and bloodshed. She laid hands on the first martyr of this revolution when Shen Chin, the reformer, with great cruelty was beaten to death with a stave in the imperial prison of Peking, July 31, 1903. Believing that he was being sacrificed for making known Russian demands that became one of the causes of the Russo-Japanese War, and appreciating his fate, he indited, some hours before his torture, a poem in which he spoke uncomplainingly of his betrayers, addressed the spirits of 11 other reformers of his native provinces who preceded him as martyrs of the Palace Revolution of 1898, and appealed to the noble to remember his sorrows. This is the poem:

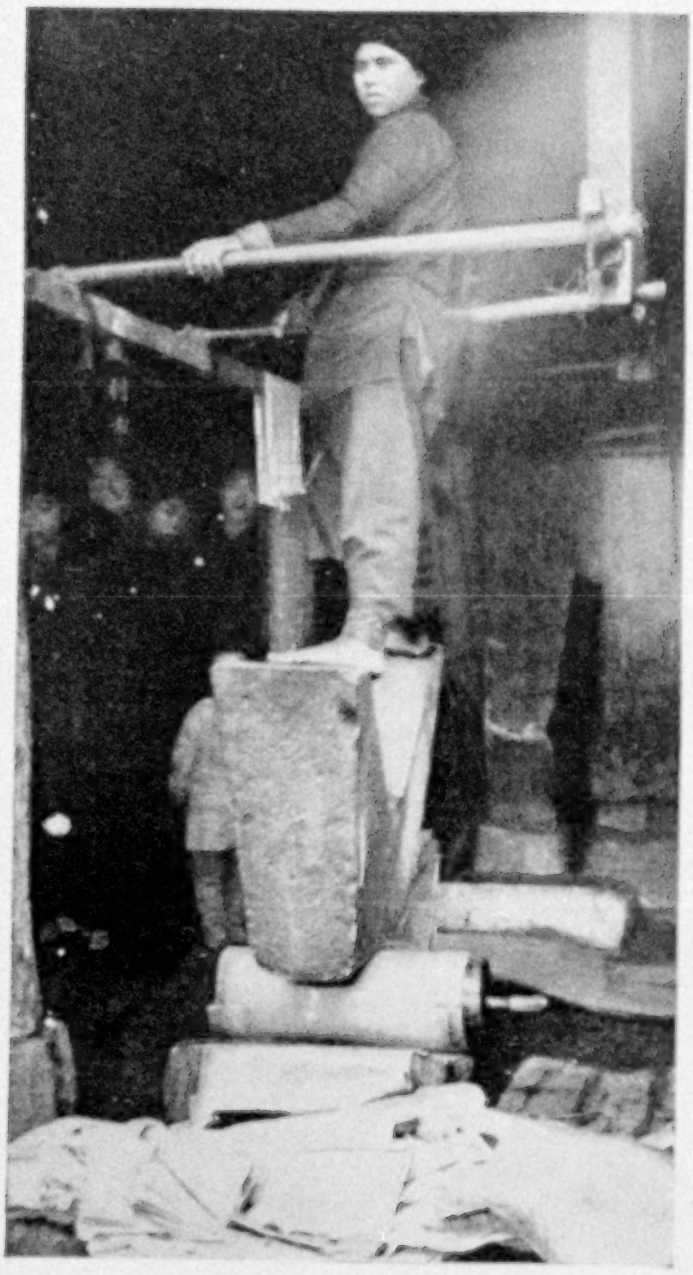


Photo by H. S. Elliott

PRESSING COTTON CLOTH IN SZECHUAN

This is the method of pressing the cloth after it has been dyed. The man puts his weight from one side to the other and the heavy stone-roller goes over the cloth.

With clanking chains I leave my prison pen
Alone, to die beside the Shun Chih men,
Where, in the market-place, their life's blood runs,
Five loyal and six learned Hukuang sons.
I too shall lie there with you. I have won
But little and my day is done.

Japan and Russia striving for the East,
China her second capital hath lost.
Partition comes apace, O bitter thought!
Rulers, look ye on the Allies' maps for nought?
My countrymen and foreign journalists!
O publish forth in the five continents
My buried wrongs!

The secret treaty I have dared to tell—
For this 'twas Ch'ing and Chung Lang used me ill.
The little reputation I have won,
How worthless! this year I am but thirty-one!
Henceforth come weal, come woe, I shall not heed,
Amidst the choirs of Heaven shall my spirit feed.*

ATTEMPTS TO ASSASSINATE THE EMPRESS DOWAGER

At the same time the Empress Dowager began devising a constitutional government for the Empire that she afterwards inaugurated, and that was a wise and sufficient scheme if carried out, and in fact was being systematically put into operation when revolution broke out. She is the first cause of the revolution to the reformers, and calls for more than a passing word.

There are two schools of reformers, and they are divided by the period of the Boxer War of 1900. The hatred which the Empress Dowager excited in the world by her massacres of foreigners at that time and among the reformers of China can be compared only with her magnitude as a sovereign. She was an autocratic luminary, like a planet, of enormous political dimensions. Foreigners and natives alike clamored for her life. A foreign correspondent of position and fame in the world was in the habit of proffering a reward of $1,000 to any one who would assassinate her. For the last 20 years of her life foreigners regarded her as China's greatest enemy, and professed to believe that her death would be China's greatest blessing. These ideas were mixed with other Western influences in China and had their effect on the Chinese.

A reformer, whom I knew well, came to me at a time and place which it would be indiscreet to identify, and told me he himself desired to kill the Empress Dowager, and that he had made preparations to do so. He was a young man of considerable attainments and experience and equipped for such an enterprise. It was a beautiful, calm day on which he called to make with me a final disposition of his affairs.

* By courtesy of the Metropolitan Magazine.

Photo by R. Powell, China Inland Mission, Toronto

THREE MANCHU WOMEN: NOTE THE CHINESE WOMAN BEHIND WITH SMALL FEET AND A STICK TO HELP HER ALONG

I asked him his plan, and he said he would kill the Empress Dowager single-handed, in the roadway, on one of her frequent journeys between the palaces, or between the palaces and the tombs of her ancestors. The Empress Dowager at the time was going about much, but always guarded.

I kept my friend in my house throughout the day and we talked the plan over. At the end of our talk he agreed that to kill the Empress Dowager would produce a situation for which neither the reformers nor the Manchu clan were prepared. There was no one to take her place; and the reformers, least of all, could form a government. And furthermore, when we had gone over the history of China's attitude to foreign nations, he was convinced that it was because of his own people, the Chinese, and not of the Manchus, that China was where and what she was.

Though the Empress Dowager had committed political faults as great as it was possible for one in her position to commit, it is true that the Chinese had had free access to the world at all points for centuries even before the Manchus, had been offered the bread of political life by disinterested foreigners of all countries, had gone abroad and brought nothing home, and until then had rejected all.

THE CHINESE, NOT THE MANCHUS, RULE CHINA

The revolution was not a month old when the National Assembly at Peking, by utter contempt for the Manchu clan and court, showed that it was the Chinese and not the Manchus who had ruled China, and that if China was broken into pieces it would be by the Chinese. At the word of the Chinese race, spoken through a small number of assemblymen at Peking, the court vanished and the highest officials disappeared.

Dr. W. A. P. Martin, the most famous of living sinologues, aptly characterized

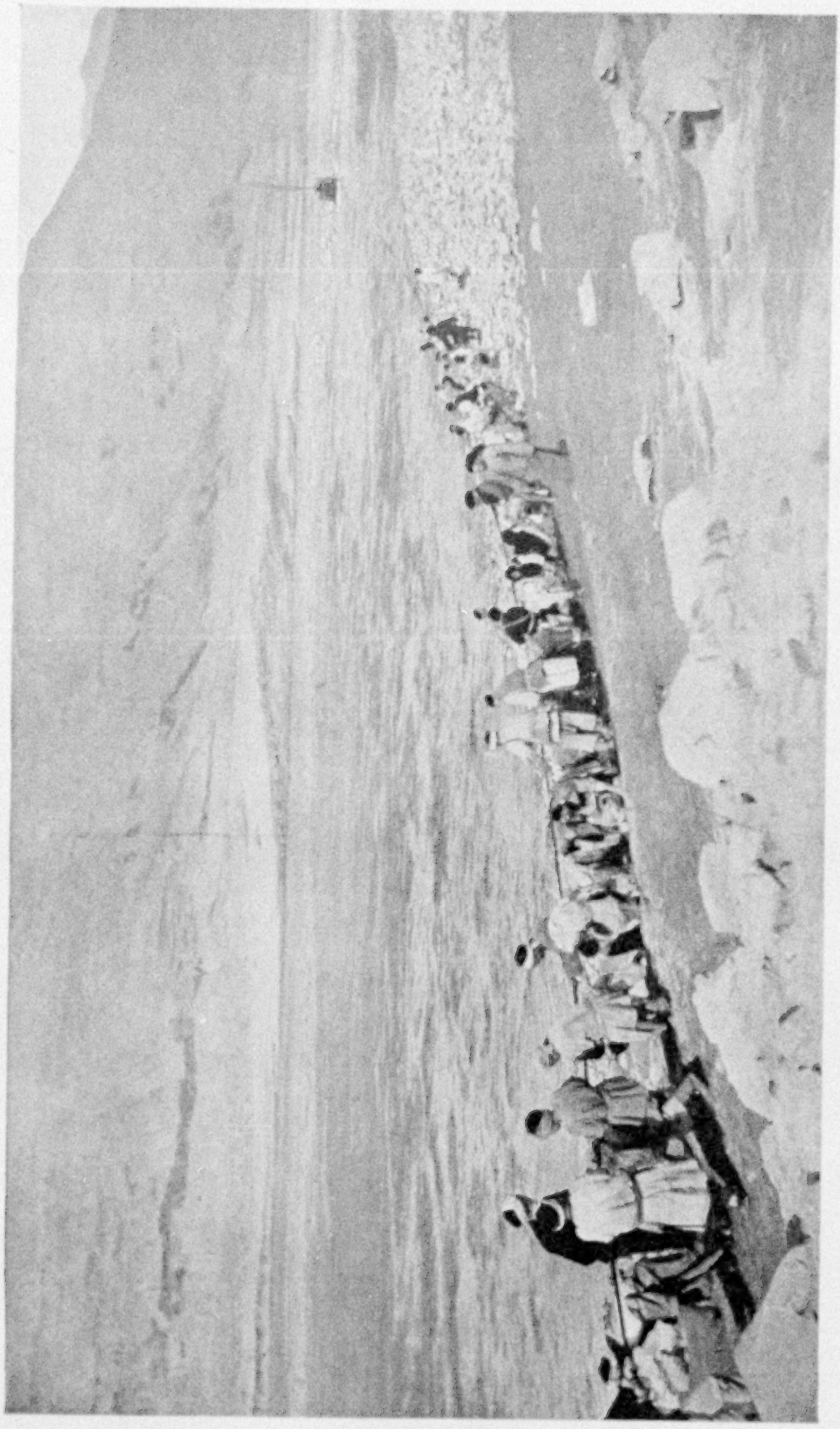


Photo by H. S. Elliott

PULLING A BOAT UP THE RAPIDS IN THE YANG-TSE GORGES

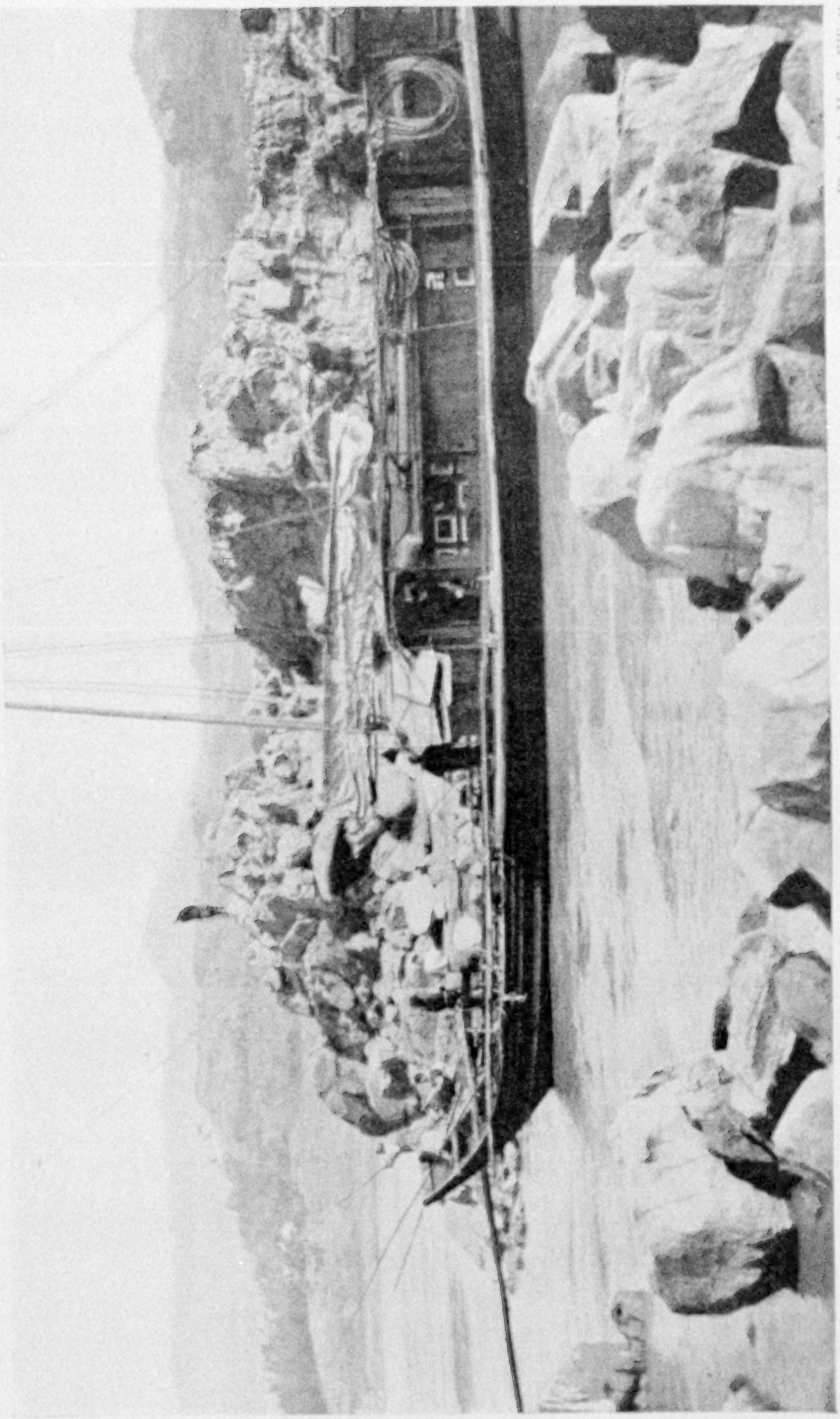


Photo by H. S. Elliott

BISHOP BASHFORD'S HOUSE-BOAT BEING SLOWLY DRAWN THROUGH A DIFFICULT PLACE BETWEEN A ROCK ISLAND AND THE SHORE

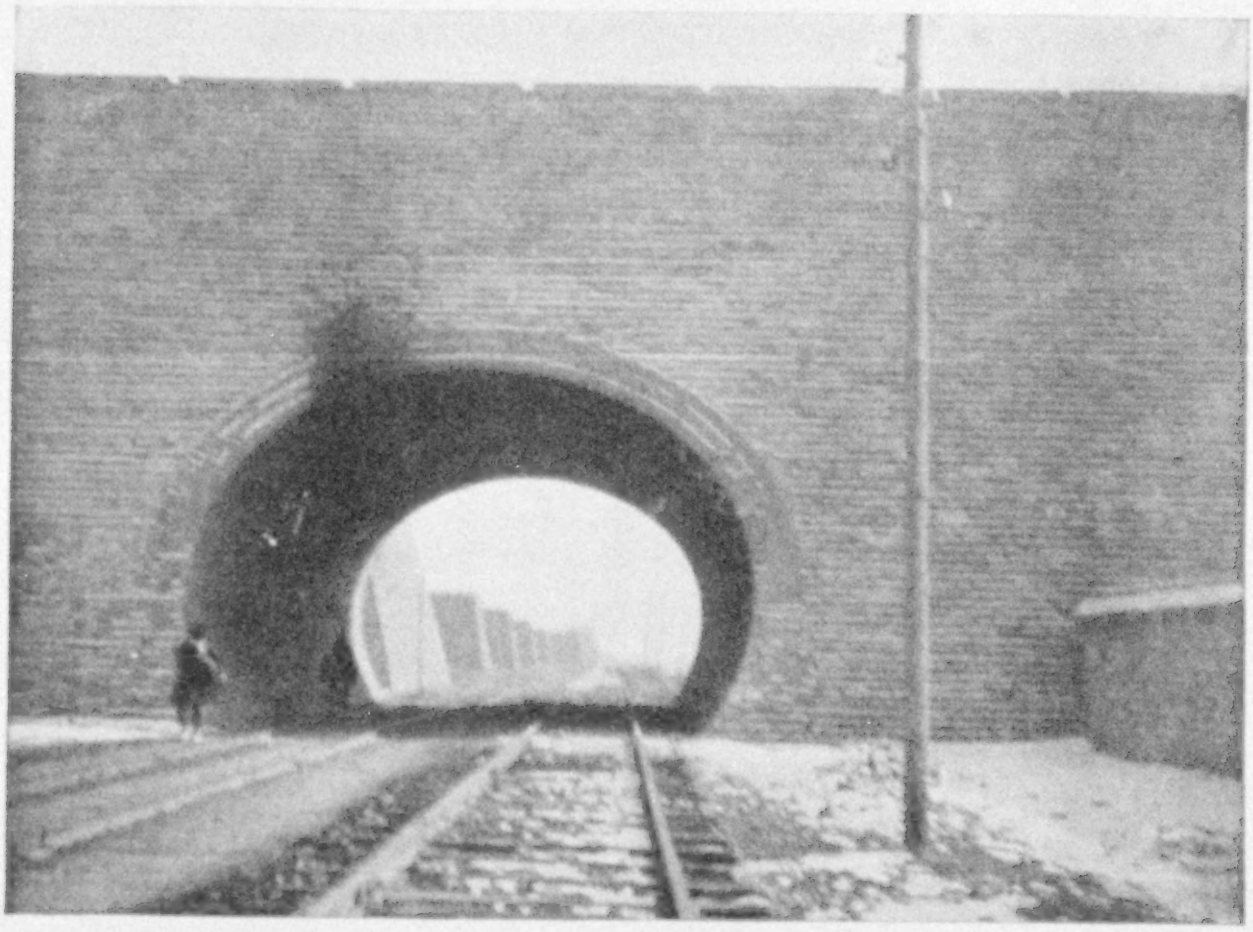


Photo from Rev. B. St. John

PLACE WHERE THE PEKING–TIENTSIN RAILWAY GOES THROUGH THE OUTER WALL OF THE HATA GATE: PEKING, NORTH CHINA

China as Chinese when he exclaimed: "China is not a power; China is an old ash-barrel, held together by the powers, and with a hen inside—goose if you will—sitting on golden eggs." As between the Chinese ash-barrel and the Manchu goose, there is some choice and it is not disadvantageous to the Manchus. China has had her reformers always. Kuang-hsi was the latest of them. The ruins and solitudes of the palace seem more in keeping with his life than the grandeur of the surroundings of the august aunt, his Empress Dowager. China's emperors have been the first reformers in connection with modern civilization, and at last the problem of civilization or reform for China has come back to them; and, owing to the great prosperity and increased power of the Chinese and the parsimonious, inhospitable, and corrupt treatment meted out by them to the throne, China has struck the Manchu dynasty at its unlucky hour, when weakest, when at the lowest ebb of its imperial vitality, relative race strength, wealth, and influence. The Manchu dynasty and the Manchu race has been in a position of being slowly strangled by the Chinese giant.

CHINA IS A VAST DEMOCRACY

China is a vast democracy under nominal control or surveillance of a liberal despotism in the form of the Manchu imperial house, its liberality representing the wisdom of the Manchus in acquiescing in the self-governing disposition of the Chinese, and the despotism representing the ferocity that ages of civilization have not educated from the Asians in the Chinese Empire, the nearly total weight of whom is Chinese.

Seeing the coming of great changes through foreign ideas, the Manchus, in 1907, granted to the people provincial

assemblies with power to discuss but not yet legislate. This gave them a taste of power the effects of which the administrators of China, Chinese and Manchus alike, had long feared. The government installed a bureau in Peking to restrain these assemblies, which were soon out of control, not merely discussing but undertaking reforms.

The student class operated newspapers and brought all assemblies and students into touch. In Szechuan, the largest and wealthiest province of China, a large percentage of the members of the provincial assembly were students returned from Japan, and one of them, Pu Tien-chun, their leader, was president of the assembly. No other assembly was more free in its criticisms of the authorities.

It had a constitutional struggle with the viceroy and won. It espoused the causes and grievances of the Hunan and Hupeh provincial assemblies, the members of which executed the main revolt at Wuchang, and its leaders in these grievances, which were centered in the opposition to foreign loans for internal improvements, organized the Anti-Foreign Loan Society and brought about the first rebellious outbreak, that of September 6, 1911, at Chengtu, their vice-regal capital (see page 1131).

THE MOST ANTI-FOREIGN PROVINCES

However, Hunan and Hupeh provinces, adjoining them on the east, and of which Wuchang is the vice-regal capital, furnish almost the whole history of the rise of the revolution. This is the industrial, commercial, and strategic center of China. The three sister cities of Wuchang, Hankow, and Hanyang represent the heart of the Empire. In 1908 an American university sent a costly mission around the world and to China to determine the future Chinese center of national interest, intellect, and power, with a view of establishing there a great Western university to save China from foreign and self-destruction. It was then determined that the three cities forming this center would be permanent—would remain on the map, so to speak, when the locations of other cities, marts, and the center of communications and populations would change through industrial regeneration. No calculations were then dreamed of that took into account such destruction of two or three cities as has taken place recently.

Hunan and Hupeh are the two provinces surrounding these cities and forming this center, and it was the reformers there and the troops of these provinces who, following the Szechuan outbreak, precipitated war against the existing rule of China.

It is believed that in these provinces three to four millions of people were in destitute condition at the time of the outbreak, due to flood and famine, and that over 100,000 persons had lost their lives. This desperation may account for a part of the determination of the inhabitants in their revolt; but from the first this center was rebellious. It had a previous reform history, which ended in bloodshed and defeat in 1898. Hunan was the first to ask for a constitution for China. On August 27, 1908, the throne sanctioned the general principles of a constitutional system, to commence at once and be in full operation in nine years; but this did not satisfy the Hunanese. They established a society for independent action in public affairs which was incorrigible, and from the Chinese standpoint unlawful. Rebellion thus found its first strong soil in Hunan.

Hunan had always had the name of being the most incorrigible and anti-foreign province of China, suspected of being concerned in revolutionary outbreaks, such as the destruction of a railway carriage by a bomb and wounding of several high officials at Peking in 1905 and the assassination of the governor of Anhui province in 1907. Yang Tu, a Hunanese, was then the leader of the younger or reform party, whose agitation among the Chinese students in Japan, where anarchy had already established itself, caused the so-called "strong man of China," Yuan Shin-k'ai, to offer him office in order to arrest his revolutionary work.

BLOODY DEMANDS FOR A PARLIAMENT

The first assemblies convened October 14, 1909, according to the constitutional plan, and Hunan, joined by Hupeh, sent a delegation to Peking to urge the throne to decree a parliament at once and not wait nine years.

To enhance the effect of the mission, a Hunanese school teacher chopped off one of his fingers and with the spurting blood from the stump wrote an inscription praying the already over-convinced delegates to demand parliament. This act was a good illustration of the extravagant spirit of the revolution, which soon declared for a republic.

Last year (1910) 17 provinces formed a similar mission to Peking, following which the National Assembly was opened there October 3; and, influenced by the tempestuous action of Hunan and Hupeh, from the first urged the government to abandon its own plan and grant an immediate legislative parliament. It defied the government; which, however, managed it with great calmness and success, avoiding the granting of any revolutionary demands until the outbreak of war. Through all this history-making the material decline of the Manchu dynasty is so precipitate that its details strike one with awe.

The reformers of Hunan and Hupeh opposed the government's policy of central ownership of railways and industrial development of China by the use of foreign money. They succeeded in holding up the famous "Hukuang" loan for the building of trunk-line railways in three directions out of Hankow, which in 1909-1910 was promoted by the four great capitalistic nations of Great Britain, France, Germany, and the United States.

The gentry of Hunan, who have always been the most powerful of the gentry class in China, became the head of this opposition, and showed by their course that rebellion, the seat of which was established in the provincial assemblies, was due not only to the leaven of foreign ideas, but to the ancient sense of provincial and community right.

No curb upon these reformers and revolutionaries was attempted until the government at Peking found it necessary radically to revise its internal policy and its finances and prepare for war and other emergencies.

NEGOTIATIONS FOR FOREIGN LOANS

Financiers of France and Great Britain were the first to sense the revolutionary rapids ahead of the Manchu government, and in 1907, when the country became revolutionary, adopted the principle of no loans to China for unproductive purposes (such as for the army or navy), and China learned by the sufferings attending her poverty at Peking that until she had a uniform currency she could not develop industries, increase national revenues, nor finance war.

On September 20, 1910, she asked America, somewhat suddenly, for a loan of $50,000,000 to reform her currency. We admitted the other three capitalistic world powers to the transaction, and the four together obliged China to close up the pending Hukuang loan agreement concurrently with the currency loan agreement, regardless of the opposition from Hunan, Hupeh, and Szechuan, whose reformers had gone so far as to influence mobs to make demonstrations of force against the employment of foreign money in railway building.

To carry this business through, China brought from Shanghai her strongest financial and industrial statesman, Sheng Hsuan-huai. This able and courageous official persuaded the government to tackle the Hunanese problem at once, and the issue of the two loans was approved by the throne in June, 1911, in spite of the reformers and revolutionaries there.

All now know what happened. The Manchu government and dynasty, in the language of the Chinese classics, was "riding the tiger." But they had been riding it for several years, and as their difficulties grew they began to regret the removal by them from office of the strong civil and military mandarin, Yuan Shih-k'ai, in 1909. This official had had

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MANCHU MEN

"The Chinese do not all hate the Manchus, who are said to rule them. They rule themselves, and only a few of them ever saw a Manchu or could recognize one. China is what she is because she is Chinese" (see pages 1121 and 1135).

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A MANCHU MAN AND WIFE

"China has struck the Manchu dynasty at its unlucky hour, when weakest, when at the lowest ebb of its imperial vitality, relative race strength, wealth, and influence. The Manchu dynasty and the Manchu race has been in a position of being slowly strangled by the Chinese giant" (see pages 1126 and 1135).

an important career, being for 15 years closely associated with Li Hung Chang, on whom the Manchus had relied in war for half a century, and was recognized as his legitimate successor. In 1898 he had become a powerful administrator and military organizer, and by 1907 had built up a defense army of foreign-trained battalions numbering nominally 80,000, and was rated the military master of the Empire.

At the end of 1909 the government was making every effort to calm the reformers and revolutionaries and get Yuan Shih-k'ai back to Peking. Yuan Shih-k'ai understood the dangers of the situation, but did not believe it was time to return. In 1910 the throne sent his protégé, Tong Shao-yi, well known in this country, where he was educated, to his home to request him to return. He named conditions, such as would guarantee his freedom from court interferences; but as these were not in the power of the regent to grant, he remained at home, about midway between Peking and the seat of the coming revolution.

When rebellion broke out the throne threw aside all indirectness and appointed him viceroy of Hunan and Hupeh, and imposed upon him the task of pacifying the revolutionary region. It was too late.

I mention this aspect of the revolution because it immediately concerns the diplomatic interest of the United States, for when Yuan Shih-k'ai was dismissed from office in January, 1909, this government believed, with that of Great Britain, that the dismissal endangered the peace of China and the welfare of foreign interests there. In consequence the two powers joined in representations to China, requiring on her part a reply as to China's policy under the new reign. The statement, I believe, was not considered satisfactory, and in fact the gradual weakening of the central power in Peking took place.

THE BEGINNING OF THE REVOLUTION AT CHENGTU

The opening revolt of the revolution in China will ever be memorable, and I will give you the graphic account which has reached me from an eye-witness in Chengtu, Szechuan, where rebellion was organized by the Tong Chi, or Anti-Foreign Loan Society. When the moment for raising the standard of rebellion approached, the revolutionists printed reassurances to the people and sent speakers into the streets, who harangued them from positions of advantage. These speakers were heard to say, "Don't touch the foreigner or his property, or our cause is doomed."

In the forenoon of September 6, 1911, a student, under guise of being possessed of a demon, secured audience with the viceroy and told him he had witnessed the destruction of Chengtu in a dream, at the same time handing him a copy of the book of preparations of the revolutionists. September 7 the viceroy called up the leaders of the Anti-Foreign Loan Society by telephone, told them he had an important communication from the Emperor to submit to them, and invited them to his residence to dinner. Six responded and two declined. When greetings had been exchanged the viceroy said:

"Why have you compelled the merchants to close their shops, the people to refuse to pay their taxes? I have treated you kindly; why are you inconsiderate of me and my country? I have reported your conduct to the Emperor. Do you not understand the position in which you have placed yourselves? Today I have prepared dinner for you."

Saying this, he called to his attendants:

"Escort the guests." And soldiers stepped in, handcuffed the leaders, and took them to prison. The viceroy then raided the offices of the Anti-Foreign Loan Society; and, having previously located the two absent leaders in their houses, arrested them. He now had all the leaders and much evidence.

The populace learned of the loss of their leaders and swarmed into the streets, where altars had been erected to the late Emperor Kuang Hsu, and, led by students, marched against the viceroy's official residence. The viceroy closed the city gates and sent cavalry

into the streets to clear them and preserve order. The people were stampeded by the cavalry, which tore along destroying the altars and shrines to Kuang Hsu and trampling under foot incense, candles, and offerings.

Out of the débris, and from their homes, men, women, and children gathered such incense sticks as they could find, and with incense in one hand and yellow paper tablets to Kuang Hsu in the other, pressed toward the viceroy's place. Here the guards took alarm at the manifestations and opened fire upon the crowd, which was crying "Give us back our Loh-lun; give us back our Loh-lun," meaning their leaders.

The moral effect of the loyalty of the soldiers to the viceroy was such that the people dispersed, leaving 26 dead and many wounded. Some of the soldiers were seen to fire over the heads of the crowd. Rain began falling and continued all night and the next day. The troops kept order in the city, but the revolutionists met them in skirmishes in the environs of the capital on the east and south, established a position about 16 miles from the city, and besieged it. Fighting was continuous for 12 days, when the siege was raised and the revolutionists dispersed.

The frequent alarms in the city threw the people into panic. Children screamed in the streets; voices cried "They are coming; they are coming!" and ran wildly about to escape the imaginary rebel militia.

"Get the women and children out the back way; if they come into the street they will be shot," was bawled through the window of a church during worship. Houses were suddenly closed; doors banged and bolts rattled in their sockets as people vanished. Though these were false alarms, it was observed that at least once during the siege Chengtu had a Sunday closing.*

This is one aspect of the event brought about by the reformers that inaugurated the present revolution in China, the most important from the foreign standpoint that China has ever had, and of greater consequence to China than the mere change of a dynasty. The importance to America of political events in China and the fate of the dynasty, which may involve radical changes in the position of the Chinese nation, is very great.

*For a description of Chengtu, see pp. 1103-7.

CHINESE CARTOONS

The newspaper press of the Chinese reformers furnishes in its cartoons of the three years preceding the revolution a comprehensive picture of the Chinese reform and revolutionary mind. The grievance against the Manchus is singularly rare in these cartoons and goes to show that the Manchu, or "Great Pure" dynasty, in its brilliant history, has a recognized place of fame among the Chinese educated masses.

Out of 300 successive cartoons published in the reform press during three years preceding the rebellion, 81 depict the vices of the mandarin, or official; 37 picture the evils chargeable to the mandarinate. The most frequent grievance in this category is obstruction of parliament.

Seventy cartoons depict foreign oppression of China through loans, indemnities, and violence. An equal number then show China's shortcomings; 12 out of these latter point out the vanity and vices of females, one cartoon representing wives of the day to be luxuries. The ignorance and indifference of the people to their condition get 9 cartoons. China's helplessness in general, due to vice, follows with 8, and next in order come the profligacy of Chinese youths, religious darkness, opium, gambling, the money evil in other forms, worship of office and power, disloyalty, national shame in conduct toward foreigners, etc. Cigarettes come last.

Twenty-six cartoons show the burdens of the people and their sick and broken condition under them. Taxation heads this list, closely followed by press persecution.

The Chinese mind is singularly bal-

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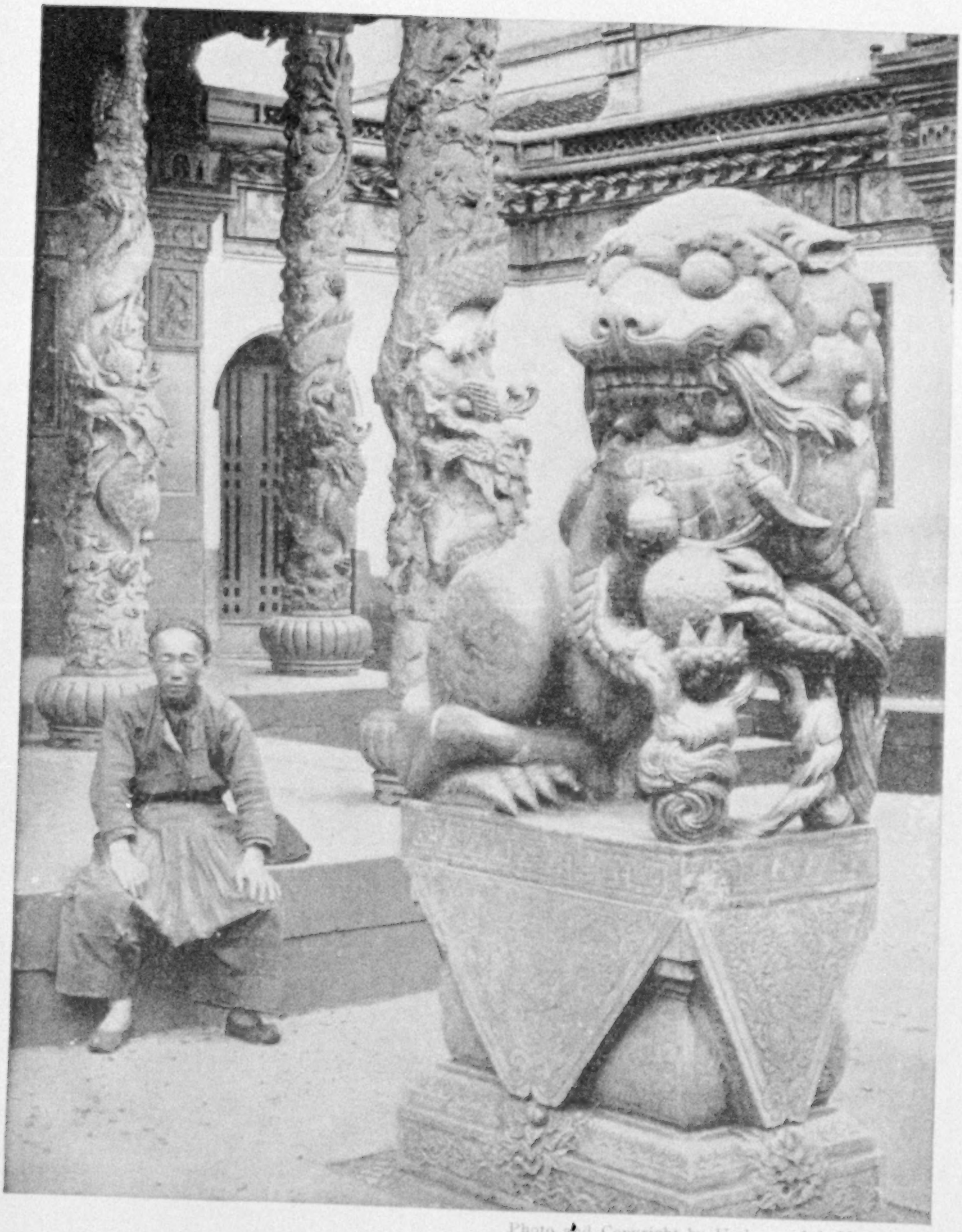
A GENERAL OFFICIAL OF INTERIOR CHINA, NAVAL MANDARIN (ADMIRAL OF THE RIVER FLEET), WIFE AND DAUGHTER: HANKAU

"Dr. W. A. P. Martin, the most famous of living sinologues, aptly characterized China as Chinese when he exclaimed: 'China is not a power; China is an old ash-barrel, held together by the powers, and with a hen inside—goose if you will—sitting on golden eggs.' As between the Chinese ash-barrel and the Manchu goose, there is some choice and it is not disadvantageous to the Manchus" (see pages 1123 and 1135).



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DRAGON NING-PO: CHINA

"China is a vast democracy under nominal control or surveillance of a liberal despotism in the form of the Manchu imperial house, its liberality representing the wisdom of the Manchus in acquiescing in the self-governing disposition of the Chinese, and the despotism representing the ferocity that ages of civilization have not educated from the Asians in the Chinese Empire, the nearly total weight of whom is Chinese" (see page 1126).

anced, and so in this general pictorial gloominess of mind is associated such hope as can be packed into nine cartoons picturing China's triumph over her evils and dangers. Five of these nine refer to the educational and moral reawakening of women and the importance of their reawakened influence. The small residue of the 300 devoted to other topics are of such a miscellaneous nature as to emphasize, more than anything else, perhaps, the importance of the revolution in the mind of the reformer.

The keenest Chinese intellect is displayed in the making of these cartoons. Their acuteness may be seen in one where "parliament" is a word written in the moon, whose reflection entertains a crowd of Chinese on the shore of a lake. There is no inscription whatever, but the obvious meaning, seen at a glance by a Chinese, is, "To China parliament is like the moon's reflection in water—not a thing to be got actually." Another represents parliament, as it was offered to the nation, as only a plaything like a kite.

What could be more exquisite in its bite than a crab, and a mandarin represented as doing a "buck-and-wing" dance, together with the inscription, "Side-steppers"?

China's plight as a nation is the inspiration of every kind of cartoon, one of the most forcible of which shows an old man standing on the stern of a vessel in a desolate stream of idle craft, with this inscription: "China is like a sorrowful man standing on the deck of a vessel, anchored, with no one who can work the sail."

THE DISLIKE OF THE CHINESE FOR A CENTRALIZED GOVERNMENT CAUSED REVOLT

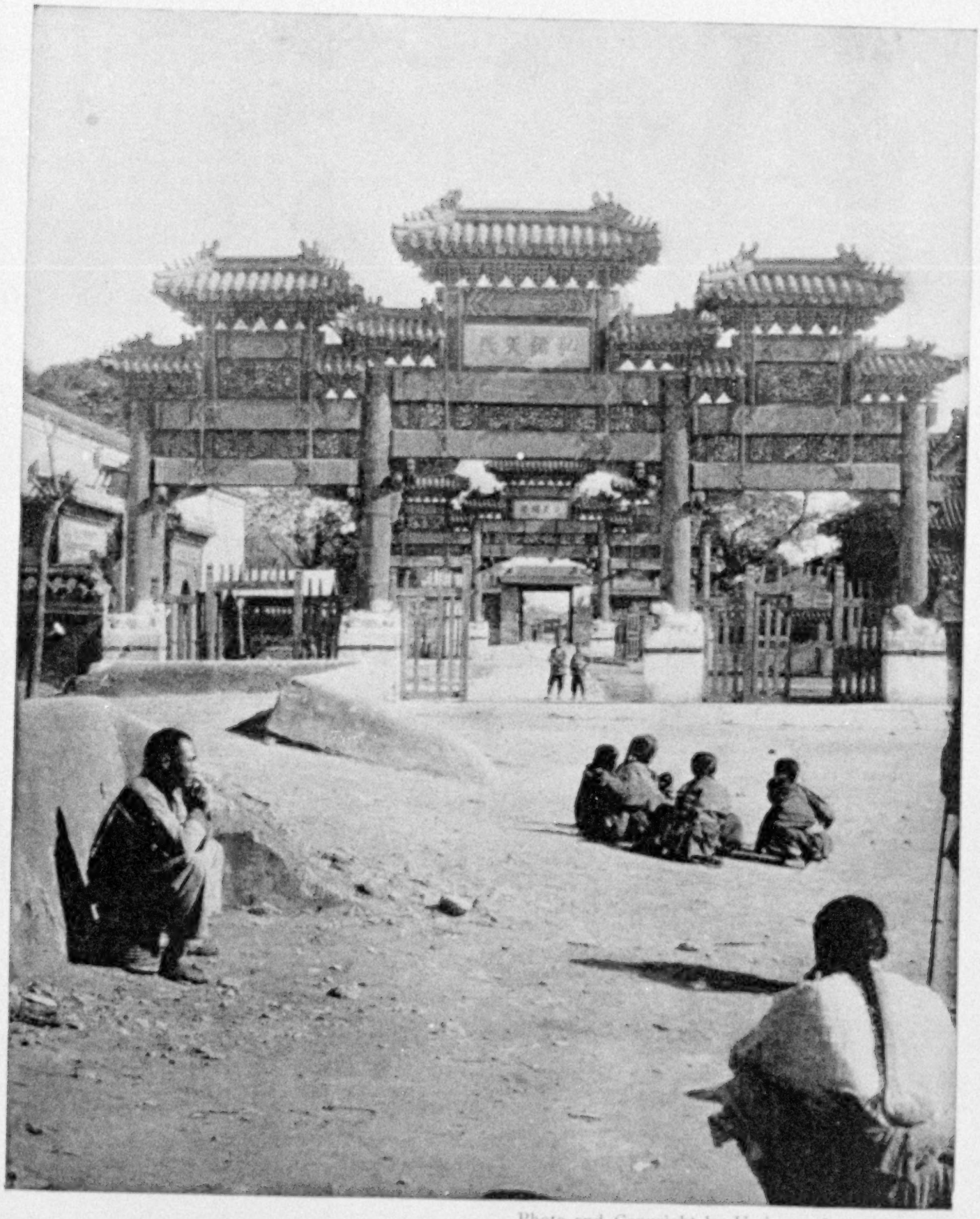
The existence of war, however, has doubled all the suffering in China which the cartoons have hitherto pictured as burdens of the unhappy Chinese. Perhaps nowhere in the world are the evils of war so terrible as in China.

China's constitutional assemblies have snatched the government from China's rulers and have been unable to manage it by themselves. They have substituted in many places anarchy for order, and they are on trial regarding their ability to create modern government. They are engaged in the greatest attempt at constitutional government in the history of man. The Manchu has disappeared. This is significant as showing that it was only necessary for the Chinese to speak loud enough in order to drive the Manchu from his throne.

Thus, as was stated at the beginning of this paper, China has struck the Manchu dynasty at its unlucky hour, when weakest, when at the lowest ebb of its imperial vitality, relative race strength, wealth, and influence. It has been slowly strangled by the Chinese giant, enchained by the immemorial Chinese system and dependent for power and succor upon the Chinese race. Nevertheless the record of its 271 years is a famous one, and if it dies, it dies fighting for the principle of a strong centralized government—the sole principle which the best friends of China support.

China is what and where she is because she is Chinese. Although the latter-day Chinese have vaulted over the heads of the progressive Manchus, their record, compared with that of the Manchus, is damaging. For 260 years they have been more Manchu than the Manchus, and they can never escape the indictment that up to this hour they have missed the principle, clearly seen by the Manchus, that the Chinese Empire, in order to survive her struggle with the powers, must have a strongly centralized if not imperialistic government.

The causes of the revolution are easily understood. Although the war-cry of the seceders has been "Down with the Manchus," this is no new war-cry. There are no new war-cries in China but that of the foreign idea. That has caused the revolution. But the thing that precipitated the revolution was the Manchu policy of a centralized government, to achieve which the coöperation of the finance and industry of outside powers was essential. And it is here that the



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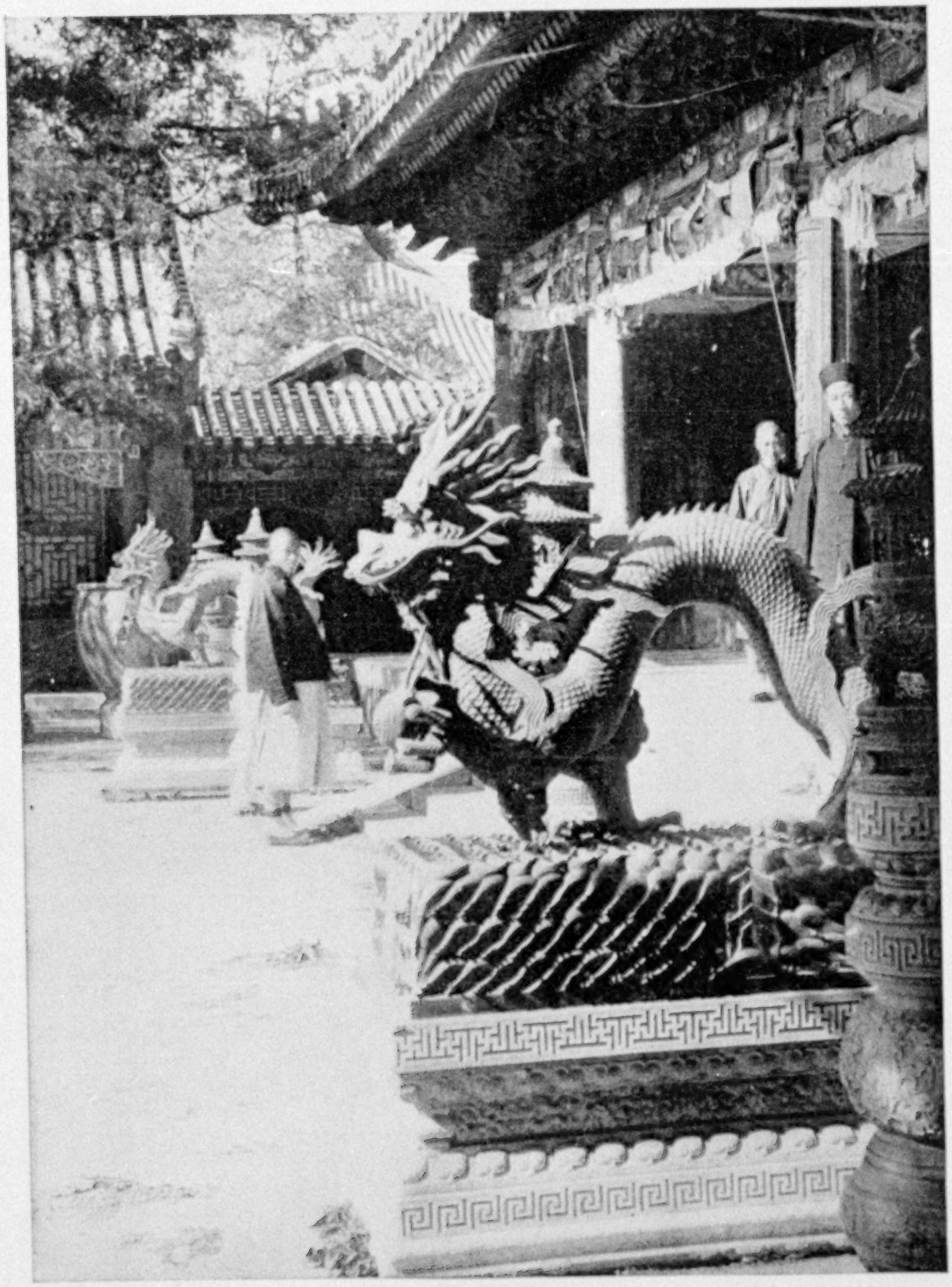
PEKING: A TYPICAL GATEWAY

"The thing that precipitated the revolution was the Manchu policy of a centralized government, to achieve which the cooperation of the finance and industry of outside powers was essential. The provinces that have set up a republic have not been willing, after immemorial independence, to surrender so little of their states' rights as was demanded by the imperial policy, nor to support a reform which would increase the revenues of the central government, and by the extension of railways and other communications extend its power. The Manchus have not been without fault. They have been too Chinese, too conservative, too exclusive. But in their policy for the welfare of China, those wise statesmen of the Chinese race, like Yuan Shi Kai, have found no fault with them" (see page 1135).



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ENTRANCE OF PALACE OCCUPIED BY CHINA'S FAMOUS EMPRESS DOWAGER: THE FORBIDDEN CITY, PEKING

"To enhance the effect of the mission, a Hunanese school teacher chopped off one of his fingers, and with the spurting blood from the stump wrote an inscription praying the already over-convinced delegates to demand parliament. This act was a good illustration of the extravagant spirit of the revolution, which soon declared for a republic" (see page 1128).

powers become involved. This policy was not adopted by the Manchus without majority support of the Chinese statesmen, among whom were Yuan Shi Kai and Sheng Hsuan-Huai.

Owing to the great prosperity and increased power of the Chinese during the brilliant Manchu era, they have been able to achieve success in revolution, but the parsimonious, inhospitable, and corrupt treatment meted out by them to the throne, and the placing of their government at Peking in point of imperial revenues on a level with the smallest independent states of Europe, have had most to do with this success.

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The Manchus have not been without fault. They have been too Chinese, too conservative, too exclusive. But in their policy for the welfare of China, those wise statesmen of the Chinese race, like Yuan Shi Kai, have found no fault with them.

CHINA'S GREATEST DANGER

The revolution has been developed and organized by the independent students, chiefly from the provinces of Szechuan and Hunan, and its greatest support comes from the champions of states' rights. Those forces found in the question of loans, promoted by the four capitalistic powers of the world—Great Britain, France, Germany, and the United States—with the desire and willingness of the Chinese government, an excuse for rebellion, secession, and independence. The blow struck at Chengtu, the capital of Szechuan, although only partially successful, is the event that inaugurated the revolution, which it is evident is a revolt against the immemorial Chinese system. The Manchus may go down before the immense figure of rebellion. It will be, on the whole, a glorious defeat; for, notwithstanding the fact that for the last decade or two the throne has made as great mistakes as it could make, its annals are filled with great Manchu names. If this is the end, it is illuminated as brilliantly in this respect as was the beginning.

It is apparent that some time must elapse before both sides in China will be able to appreciate the "golden mean" in which China is to realize a new union.

There are two kinds of revolutionaries and reformers: those favoring a modern monarchy under the Manchu Emperor, and those favoring a republic and the extinction of the Manchu dynasty. The possibilities of the revolutionary situation in China under the circumstances are enough to make the friends of China shudder. Encroachment on states' rights is the grievance in the hearts of rebel republicans at Wuchang, and in the making of the new constitution states' rights will be the sinister rock which the ship of the new Chinese state must avoid.

China's greatest danger after her predilection for extremes and horrors is foreign intervention. Her best and most conservative reformers look forward to a leader who has not yet appeared, and who will unite the various reform elements and reorganize the Empire as a monarchy. Whether as a monarchy or republic, China must always be a nation in whom the United States must find a friend and in whose fate she must count herself concerned.

MAKING THE FUR SEAL ABUNDANT

By Hugh M. Smith

United States Deputy Commissioner of Fisheries

THE fifteenth of December, 1911, was the time set for the formal adoption of one of the most important international conservation measures that has ever been effected. Pursuant to a convention or treaty concluded at Washington on July 7, 1911, by the United States, Great Britain, Russia, and Japan, the fur seals of the north Pacific Ocean will receive for the first time a form of protection that has been shown to be absolutely necessary, and is guaranteed by these four great powers for a term of 15 years.

The agreement prohibits absolutely pelagic sealing, or the killing of fur seals while in the water, and places the legitimate killing of surplus male seals on land under the direct control of the governments interested.

This convention insures the rescue of the depleted fur-seal herds from commercial extinction; prohibits the citizens or subjects of the contracting powers from engaging in a wasteful, cruel occupation, and removes a long-standing disturbance of international good-will.

Fur seals inhabit certain parts of both the northern and southern hemispheres, but the most important herds live in the north Pacific, represent three distinct but closely related species, and are known as the Alaskan, Russian, and Japanese fur seals, respectively. Although the northern seals roam widely on the high seas, they always resort for breeding purposes to certain definite bits of land, and it is this habit which gives particular nations property rights in them and has created several international complications.

The Japanese seals visit no land except Robben Island and certain islands of the Kurile chain; the Russian seals never go to other shores than those of the Commander Islands, off the coast of Kamchatka; and the Alaskan seals, after distributing themselves over the eastern part of the Pacific Ocean as far south as southern California, make an annual pilgrimage to islands in Bering Sea.

Of all the fur seals, the most numerous and important are those of Alaska, which came to the United States with all the other resources of the territory when Russia ceded her jurisdiction. The Alaskan fur seals have for many years been the subject of protracted national and international discussion, and during the years 1910 and 1911 came in for an unusual amount of attention. In addition to the consideration received during the diplomatic negotiations resulting in the treaty already mentioned, Congress has enacted a new law relating to the seal islands, a new dispensation has come in the administration of the islands, and the government as represented by the Bureau of Fisheries has for the first time engaged in the business of taking and marketing seal skins.

The "new dispensation," as shown in the subsequent text, includes permanent scientific observation and control of the herd, discretionary authority to suspend all killing, and discretionary power to lease the sealing privileges or to exploit them as a government monopoly.

THE PRIBILOF ISLANDS, WHERE THE SEALS BREED (SEE MAP, PAGE 1141)

The only land to which the Alaskan fur seals ever resort is the group of small, rocky islands lying in Bering Sea 215 miles north of Unalaska Island, the nearest land. These bits of bleak land have come to be popularly known as the Seal Islands, from their most conspicuous feature; but among geographers they are called the Pribilof Islands, in honor of the Russian navigator who, in 1786, while in the employ of a Kamchatkan trading company, followed the migrating seals and ascertained for the first time

where they resorted. The group consists of two main islands, St. Paul and St. George, which are separated by 40 miles of water, and three islets lying within seven miles of the others. St. Paul, the largest island, is 13½ miles long and has an area of 43 square miles; St. George is 12 miles long and covers 30 square miles; while the largest of the islets comprises about 100 acres of extremely rugged volcanic rocks.

Owing to the entire absence of harbors, landings on the islands can be made only in small boats, and then only during calm weather; when storms prevail or a heavy surf is running there is no possible communication between vessels and the shore. The installation of a wireless telegraph plant in 1911 has meant a great deal to the islands and reduced the excessive isolation to which the inhabitants have been subject. Heretofore, from the time the last government vessel leaves in October to the arrival of the first vessel in May, there has been no communication whatever with the outside world.

Throughout the summer dense fogs prevail about the islands, the air is cold and damp, and the sun rarely shines; in autumn cold winds dissipate the fog and clear days are more common. Winter begins in November, and high winds prevail and much snow falls. At the end of the season drift-ice piles high on the northern shores and remains there until May. With the return of warmth, the entire surface of the islands, wherever there is soil, becomes covered with a luxuriant vegetation, consisting of grasses, mosses, and a profusion of showy flowers, of which the most conspicuous are lupine, chrysanthemum, harebell, poppy, betony, squaw-weed, and saxifrage.

THE PEOPLE OF THE ISLANDS

At the time of the discovery of the Pribilofs there were no human inhabitants. As soon as the Russians began to take seal skins they transferred thereto from the Aleutian Islands a number of natives to do the manual labor, and from time to time established small colonies at various convenient points. When the United States government took over the islands these people came into our control, and since that time they have been "wards of the nation."

The present population numbers about 300 on the two islands. The people have remained true to the influences to which they were first subjected, and in some respects are today more Russian than American at heart. All of them are members of the Russian Church, and all of them have Russian names, selected for the most part from among the nobility.

The United States government has been a faithful guardian of these primitive people. The result is that today they are the most highly civilized, best clothed, best fed, and most healthy of all the natives of Alaska.

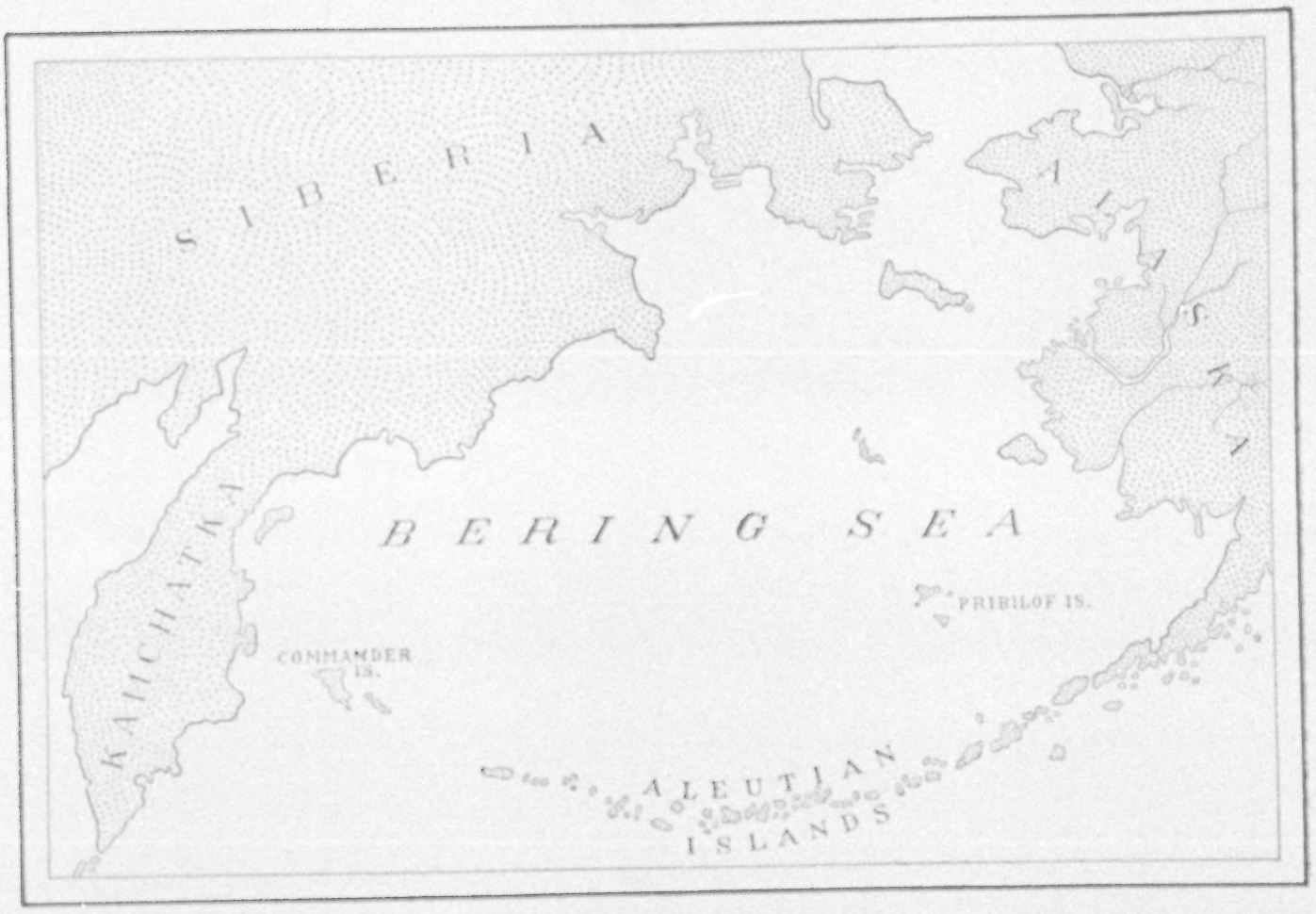
RESPONSIBILITY FOR THE DECLINE OF THE SEAL HERD

When the seal islands came into our custody the fur seals thereon constituted the most valuable aquatic resource that any government ever possessed. Owing to the immense body of animals present and the difficulty of counting with any degree of accuracy, estimates of the size of the herd at that time necessarily differ widely, the extremes being two million and seven million. It is safe to assume that the number was between two and a half and four million, distributed on 20 to 30 rookeries.

At the close of the season of 1911 the Alaskan seal herd consists of not more than 150,000 individuals of all ages.

This appalling dwindling of the herd has occasioned much concern and has subjected the government to much unfavorable criticism, because the government has exercised full and continuous control during all the intervening years up to the present date. It will be seen, however, that the criticism is not justified, for the reason that the decline and decimation of the herd came through causes operating when the seals were on the high seas and beyond the protecting care of their foster father.

It is furthermore a fact that the government took active steps to secure ade-



OUTLINE MAP OF BERING SEA, SHOWING LOCATION OF PRIBILOF ISLANDS

quate protection for the seals when away from the Pribilofs, and that its efforts were frustrated chiefly by the results of an unfortunate international arbitration.

COMPOSITION OF THE HERD.

Whether the seal herd is large or small, it has a definite organization and composition dependent on the peculiar habits of the species; and not the least interesting thing about the herd is the peculiar set of names applied to its elements in both popular and scientific discourse. In the first place, the most accurate designation of the fur seals is sea bears, as these creatures have strong anatomical relations with the bears and differ markedly from the hair or true seals. This fact was recognized by Steller in 1741 when he gave an account of the "sea bear" found on Bering Island, a designation later perpetuated by Linnæus when he bestowed the technical name of *ursina* on the Russian fur seal.

But although the fur seals as a group may be sea bears, individually they have names which completely ignore their ursine affinities. The adult males are called bulls and the adult females cows. The newly born, however, are neither calves nor cubs, but pups, and the young males are officially known as bachelors. The particular places on the shores of the islands where the seals resort are always called rookeries; and the family unit is the harem, composed of a single bull and any number of cows up to 50, or even more.

EXTRAORDINARY VITALITY OF SEALS

Although the seals are easily killed by the methods adopted by man for their destruction on sea and land, they are capable of withstanding great privation and of undergoing extraordinary muscular exertion.

To maintain themselves during winter in the tempestuous north Pacific without

Photo from Hugh M. Smith, U. S. Bureau of Fisheries

This rookery, at the southern end of St. Paul Island, is nearly a mile in length, and formerly had an enormous number of seals, perhaps 500,000, but now contains only a few scattered harems, mostly of small size. In the middle foreground are several "pods" of pups. When the pups are only a few days old they leave the family circle and congregate together on the outskirts of the harem, where they sleep and play. This "podding" serves the useful purpose of keeping the pups out of the way of fighting and trampling bulls.

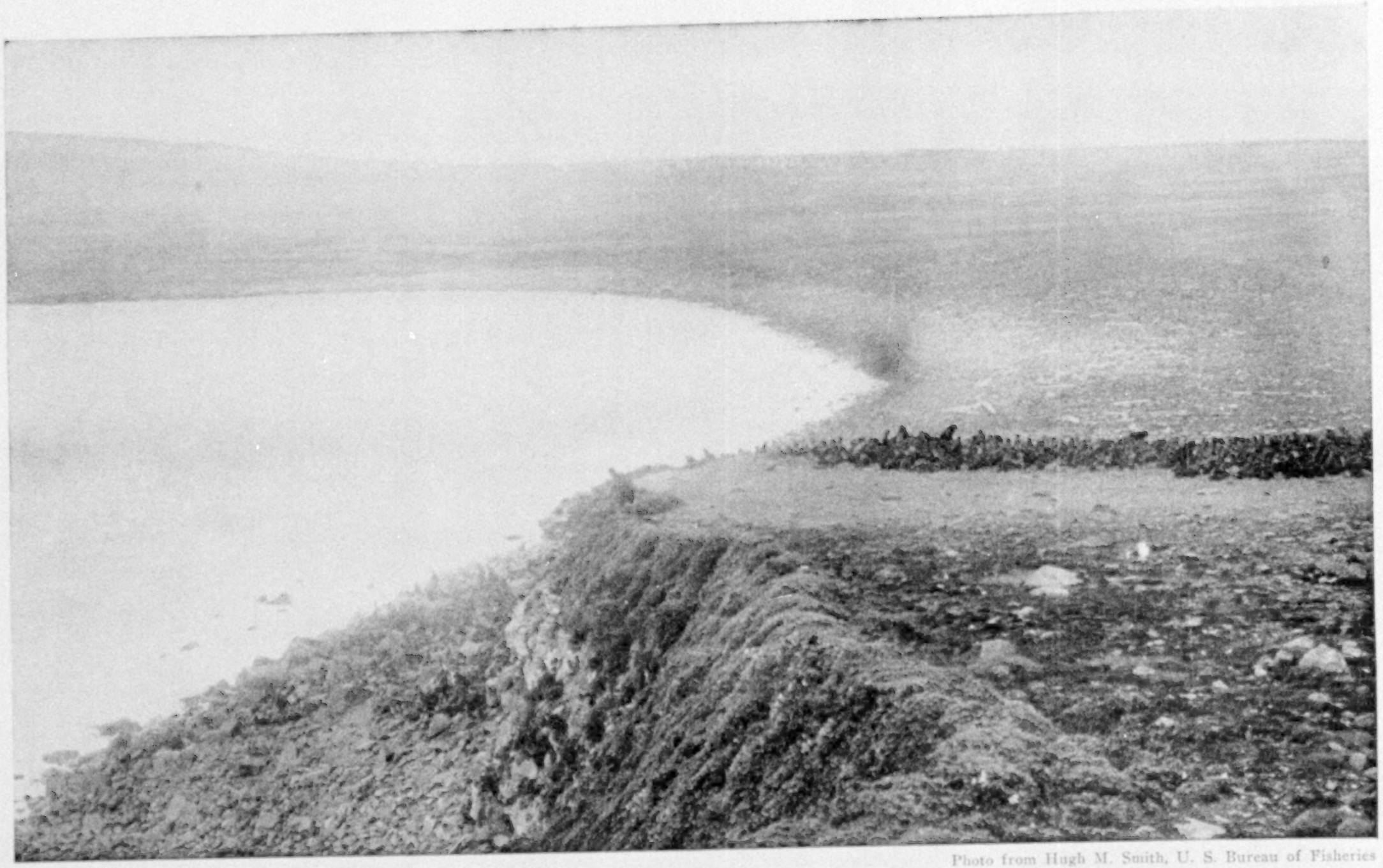
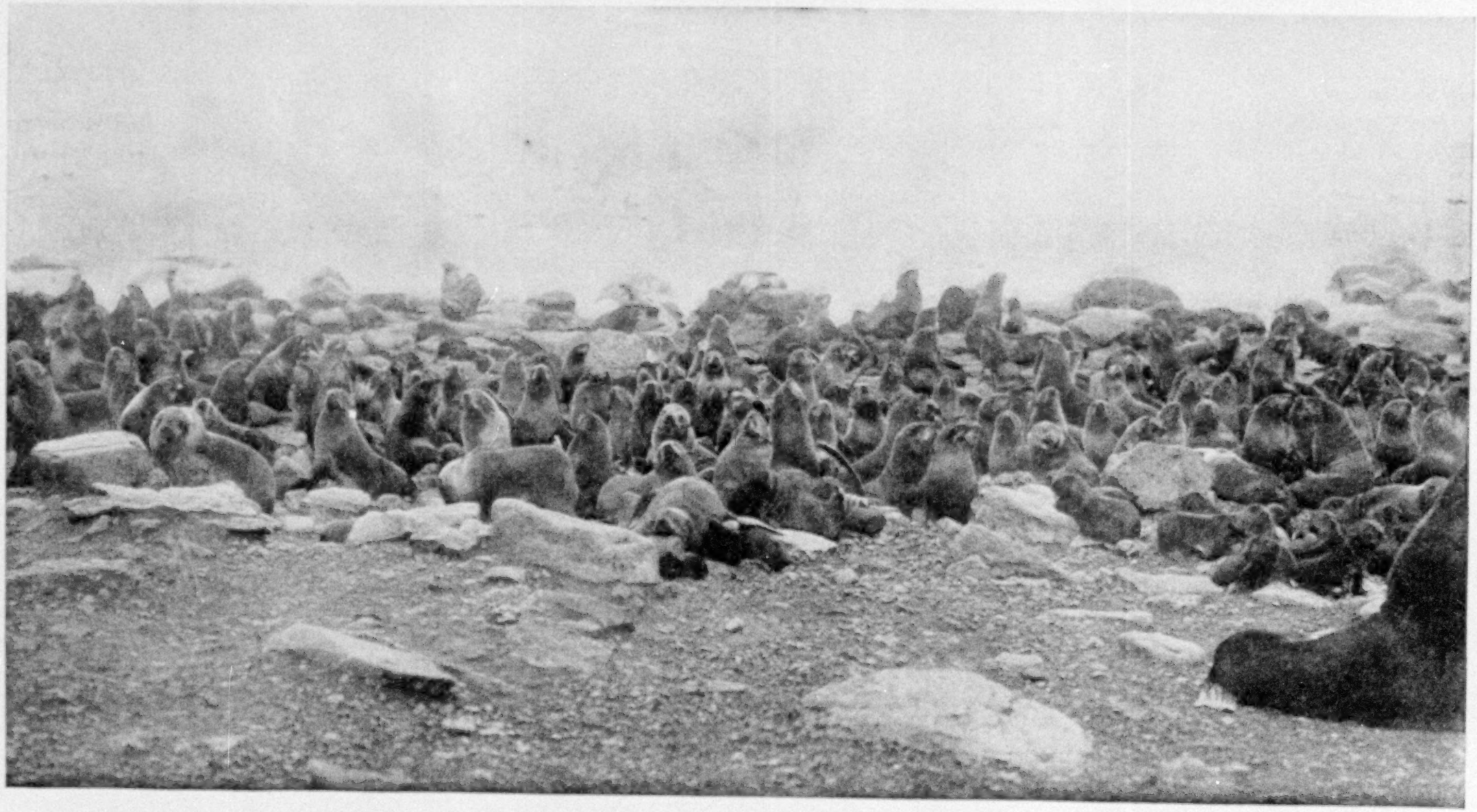


Photo from Hugh M. Smith, U. S. Bureau of Fisheries

ZAPADNI ROOKERY: ST. GEORGE ISLAND

This view, taken in 1906, shows but a vestige of the great body of seals that once frequented the entire beach as thickly as the remnant here shown. Since 1906 this rookery has been still further contracted. In the early years of American occupancy Zapadni contained probably not less than 50,000 seals, and in 1873 the pelts of over 7,500 surplus bachelors were taken here. In 1910 not a single seal was killed on this rookery.



COWS MASSED ON THE BEACH

In former years the seals covered all portions of all the rookeries in even greater density than here represented. Note the numbers sporting in the sea. Photograph taken by the late Dr. H. D. Chichester, a government agent, who was drowned at the islands in 1911

resorting to land is in itself no small accomplishment for air-breathing animals. The females, leaving the islands in November, go further south than any other members of the herd, and in December appear off southern California, where they remain until March. They then begin their long return journey, reaching the islands early in June.

Within two days of their arrival on the rookeries the cows give birth to their pups. Not until ten or twelve days have elapsed do they return to the water or take any food. Then, after washing and playing near the islands, they make their first long trip to the feeding grounds, coming back to the rookeries after three or four days. Thereafter throughout the season the cows make regular feeding trips at intervals of five to ten days.

The seals subsist chiefly on squid, but also on herring, smelt, salmon, pollock, and other kinds of fish, which are caught and eaten in the water. They have prodigious appetites and gorge themselves whenever the opportunity comes.

It is a curious fact that the seals should have made their summer home in the midst of a section of sea singularly deficient in fish life. In early times the food requirements of the herd amounted to a number of millions of pounds of squid and fish daily, and even at present the needs are enormous; but the nearest feeding grounds lie 100 miles away and the most remote fully 200 miles distant, on the submerged plateaus and islands, known as banks, situated on the north side of the Aleutian chain.

The bachelor seals, having no responsibilities and cares, require less food than the mother seals and make less frequent and less expeditious trips to the feeding grounds, and pass much of their time sleeping on land or playing in the water near the shores.

The old bulls, however, have the most extraordinary vitality. Arriving on the islands about the first of May, they remain constantly on land until the last of July or the early part of August without eating a single thing or even drinking, but living on the great amount of fat they have stored up while at sea. During all this time they maintain most vigilant watch over their harem, and are always ready to repel invaders, whether human or others, and to fight their rivals to a finish.

THE ROOKERIES

Certain rocky beaches and rocky hillsides along the water front have from immemorial times been resorted to by the fur seals for breeding purposes. The favorite type of rookery ground has a moderate slope with coarse rock and a beach of shingle or wave-worn boulders. Here the adults crowd together in dense masses and here the pups are brought forth.

In early Russian days the Pribilof rookeries received distinguishing names, which have been used to the present time. All of the rookeries now occupy much less space than formerly, because of the depletion of the herd and the tendency of the remnants to maintain the same density of formation that was necessary in pristine times. The ratio between the size of the rookeries and the area of the rookery ground is a good criterion of the condition of the herd. The tremendous disparity in recent years graphically tells the pitiful tale of the seals and suggests the great possibilities of the present efforts to replenish the herd.

In close proximity to the rookeries proper are the "hauling grounds," where the young males up to five years of age congregate. These grounds are usually flat, sandy beaches or elevated plats in the rear of the rookeries. The strict discipline of the harems does not permit the intrusion of the young males, and summary ejection awaits the luckless bachelors which, on their way to and from the water, fail to keep on the outskirts of the harems or to observe the neutral runways that are maintained between the harems.

The older males, up to seven years, do not ordinarily have harems, but lead a solitary existence on the water front or on the outskirts of the harems. They have frequent fights with the harem mas-

The very rocky shore to which the seals are here resorting is formed by the breaking down of near-by cliffs. The number of bulls is relatively so large as to lead to constant disturbance. A favorite occupation of the surplus bulls is to steal cows from the harems by seizing them in their jaws and carrying them away bodily or flinging them high in the air. Many cows are thus severely injured, and many pups are crushed by the raging bulls. Section of a small rookery on St. George Island. Photo from Hugh M. Smith, U. S. Bureau of Fisheries.

ters and among themselves, and sometimes, awaiting a favorable opportunity, invade the harems and carry off the cows by main force.

The young females, arriving late in the season, do not generally resort to the hauling grounds, but frequent the disorganized rookeries and spend much of the time playing with the pups.

The full-grown male fur seal is 6 feet long, has a spread of nearly 6 feet between the tips of his outstretched fore-flippers, and weighs up to 450 pounds. The adult female has an average length of 4 feet and an average weight of 75 pounds. The pups weigh 11 pounds at birth and 25 to 30 pounds by the time they have become proficient in swimming, at the age of three months.

At times, especially early in the season, all the seals on land sleep the greater part of the time. A person may note a harem of which every member, even the vigilant master and the hungry pups, is sound asleep.

The seals furthermore have the faculty of sleeping in the water, resting on the back with the long hind-flippers held aloft or snugly folded along the body, and with the nose protruding from the surface. It is this habit of sleeping at sea which enables the hunter to approach close enough to hurl a spear or discharge a load of buckshot, and has resulted in pelagic sealing with all of its attendant evils.

While individual seals or entire harems may be asleep, the rookeries as a whole always present an animated scene, accompanied by a steady volume of discordant sounds both day and night. The bulls frequently utter savage roars of defiance, and keep up a constant scolding, chuckling, and whistling in order to maintain discipline, and the cows have a shrill bleat and the pups an answering cry far more penetrating than the calls of sheep and lamb.

Off each rookery there is throughout the season a party of swimming, playing, sleeping seals, and an incessant passage of seals to and from the rookery and hauling grounds. Some of them are bachelors, but most of them are cows, whose necessity for going to sea for food is greater than that of any other members of the herd, for they have to sustain themselves and also provide nourishment for their pups.

On the approach of cold weather, the cows and pups leave the islands together. Up to that time the pups have subsisted solely on milk, and they then have to learn to catch their own food, consisting of fish and squid. Inasmuch as the natural mortality among the pups in their first year is fully 50 per cent, it is evident that they experience many vicissitudes in the tempestuous seas to which they commit themselves. The males follow shortly after, but some remain about the islands throughout the winter in mild seasons, and the natives always depend on seals for food in December and January.

EXPLOITATION OF THE FUR SEALS BY RUSSIA

Fur seals and hair seals have always been regarded as legitimate objects of exploitation, and all governments having real or assumed property rights in herds of seals have sanctioned their killing, under restriction, for fur, leather, oil, food, etc.

Beginning in 1786 and continuing until the sale of Alaska, Russians were almost continuously engaged in killing fur seals on the Pribilof Islands. In the earlier years there was a promiscuous scramble among rival companies, so that to maintain order and properly regulate the taking of seals the government was forced in 1799 to give the privilege to a single company, created by imperial decree and having among its shareholders members of the imperial family and the nobility. This association, known as the Russian-American Company, enjoyed a monopoly of this business as long as Russia had control of Alaska. An ukase issued by Alexander I in 1821 for the regulation of the company had as one of its features the prohibition of foreign vessels within 100 miles of the Russian coasts and islands. This ukase involved Russia

Photo from Hugh M. Smith, U. S. Bureau of Fisheries

A SECTION OF KITOVI ROOKERY: ST. PAUL ISLAND

This rookery has undergone marked shrinkage as a consequence of pelagic sealing, and in recent years the section here shown has been entirely destitute of seals

in a dispute with the United States and Great Britain, resulting in the treaties of 1824 and 1825, which recognized Russia's claim to jurisdiction over the whole of Bering Sea, Okhotsk Sea, and other water inclosed by Russian territory.

From the outset the company placed a rational limit on the number of animals killed each year, and in the light of later experience it is evident that the herd would have been fully able to sustain the annual harvest of skins if these had been taken only from the males. But males and females alike were slaughtered in ignorance or disregard of the polygamous character of the seals, and as early as 1806 it was necessary to suspend operations for two years in order to permit the herd to recuperate.

When killing was resumed, however, it was along the same destructive lines, and the mighty fur-seal host continued to dwindle until by 1834 its numbers were reduced to one-fifteenth or one-twentieth of those present in the first years after the discovery of the islands. The suspension of all killing for a term of years then ensued, and by the time operations were resumed the company officials had come to realize that the females should be protected, and later the sacrifice of old bulls and young pups was stopped.

The result was a remarkable recuperation and increase in the herd that afford a valid basis for the belief that speedy recovery of the decimated herds of Alaska, Russia, and Japan may follow the elimination of the factor responsible for their present condition, namely, the indiscriminate killing of males and females at sea. When Russia ceded her jurisdiction over Alaska, the Pribilof fur-seal herd had attained a degree of prosperity closely approaching its condition at the time of its discovery, and we thus came into possession of a resource but little impaired and had a knowledge of its significant history to guide us in its treatment.

AMERICAN CONTROL OF THE SEAL ISLANDS

It is a cause for congratulation that no country has dealt with its seal life in a more intelligent, humane, and zealous manner than the United States, and it was a cruel fate that for so many years rendered our efforts futile. The only occasion when there was any laxity in our administration of the seal islands was during the first years of our possession, when the government was still unorganized anywhere in the territory and various private companies landed parties on the Pribilofs and took seal skins without any government supervision or restriction. It was in that year that the largest killing in the history of the islands was made; the number of skins obtained was probably not less than 300,000, and may have reached 375,000; but this take was not indiscriminate, was confined to bachelors, and had no effect on the permanence of the herd.

After full consideration of the best method of handling its fur-seal wards and managing its fur-seal industry, the government decided to place the control of the islands under the Treasury Department and to lease the sealing privileges to a responsible company. Congress gave effect to this decision in 1870, and in the same year the competitive offer or bid of the Alaska Commercial Company was accepted as the one most likely to subserve the "interests of the government, the native inhabitants, the parties heretofore engaged in the trade, and the protection of the seal fisheries." By the terms of this lease the company for a period of 20 years was given the right to take annually 100,000 male seals over one year of age, and was required to provide for the subsistence and education of the natives. In 1874 Congress gave the government officers closer control of the situation by authorizing them to determine the number of seals that might be taken each year. In return for this monopoly, the lessee agreed to pay to the United States an annual rental of $55,000 and a tax of $2.62½ on each skin taken. The company took its annual quota of skins and dropped from the scene when its contract expired in 1889.

During the later years of this company's lease there began a decrease in the herd, which became strikingly evi-

Photo from Hugh M. Smith, U. S. Bureau of Fisheries

KITOVI ROOKERY: ST. PAUL ISLAND

This picturesque beach, known as "The Amphitheater," is a part of one of the most celebrated and extensive rookeries of earlier days. The photograph, taken in July, 1901, shows a few harems occupying the fore shore, whereas in former years all the land here represented, and much adjoining space now entirely deserted, was thickly covered with seals throughout the summer.

Photo from Hugh M. Smith, U. S. Bureau of Fisheries

A NEARER VIEW OF TWO HAREMS SHOWN IN THE PRECEDING VIEW

The harem master is on the right, and the cows, nearly all of them with pups beside them, are seen to prefer the rough, boulder-strewn areas rather than the smooth lava bed

A ROOKERY ON ST. GEORGE ISLAND

Most of the cliffs on St. George Island are so close to the beach that little rookery space exists, and the number of seals resorting to that island was never so large as on St. Paul. This type of rookery ground, formed by disintegrating cliffs, supplemented by boulders pushed up by the drift ice each winter, is very favorable for both young and old seals. The white lines on the rocks were placed there to facilitate the government officers in the seemingly hopeless task of taking the annual census of the seals. Photo from Hugh M. Smith, U. S. Bureau of Fisheries.

dent when in 1890 a new corporation, the North American Commercial Company, obtained the lease and entered on its 20-year contract under conditions that were much more favorable to the government: thus, the company paid an annual rental of $60,000 and a tax of $10.62½ on each skin; provided free dwellings, churches, schools, fuel, provisions, and medical attendance for the natives; gave employment to the natives, and cared for the aged, widows, and orphans. The annual quota of skins was placed at 60,000 for the first year, and the government retained the right to fix the quota in each subsequent year.

The new company obtained less than half its quota in 1890, and from that time until the expiration of its lease was never able to secure more than a small percentage of its quota. This was owing to the decline of the herd and the resulting scarcity of killable seals, to restrictions imposed by diplomatic arrangements, and to the exercise of discretionary authority by the government agents.

On the organization of the Department of Commerce and Labor, in 1903, the fur-seal service passed from the custody of the Treasury Department, and in 1909 was placed under the immediate direction of the Bureau of Fisheries. By act of Congress of April 21, 1910, the renewal of a lease of the sealing privileges of the islands was made optional with the Secretary of Commerce and Labor, and in 1910 and 1911 the government exercised direct control over the taking and marketing of seal skins. This has resulted in great pecuniary advantage to the government; but of far greater importance is the placing of the seal herd for the first time in its history under continuous scientific observation and control.

For a century or more London has been the world's market for raw seal skins, and the entire product of the north Pacific land and sea killing has there been disposed of. The salted pelts are graded according to size and quality and sold at public auction in lots of about 100. In 1910 the average price received for the 12,920 skins obtained by the government on the seal islands was $33.

London is also the world's headquarters for the plucking, tanning, and dyeing of seal skins; but London's predominance ceases there, for America is the world's market for prepared seal skins, and 75 per cent of the annual output finds its way to our shores, after paying a duty of 20 per cent.

THE SCOURGE OF PELAGIC SEALING

Although the indiscriminate killing of seals in the sea had been going on from very early times, this business was not extensive, was conducted by natives using spears in their canoes, and had no appreciable effect on the herd. Even for a number of years after vessels were introduced, in 1872, no damage to the herd resulted, as the same primitive method of capture prevailed. But with the increase in the number of vessels engaged, white hunters became necessary for the manning of the vessels, and with them came the rifle and the shotgun. Then began the carnival of ruin, which has continued to the present time. In 1891 the pelagic sealing fleet had grown to 115 vessels, with crews of 15 to 50 men.

It was the practice of such vessels, with their crews scattered in small boats over a wide area, to intercept the migrating herd off California or Oregon and follow it into Bering Sea, spearing or shooting every seal that was in reach, and then to cruise in Bering Sea in the vicinity of the islands and kill the seals on their way to and from their feeding grounds.

Special inquiry made by the government showed that in different years from 70 to over 90 per cent of the seals killed at sea, either on the northwest coast or in Bering Sea, were females.

What pelagic hunting then meant to the seal herd when so large a fleet was engaged, and what it has meant recently when the fleet was larger in proportion to the number of seals, may be appreciated when it is stated (1) that for every seal killed and secured by the hunters not less than two seals were

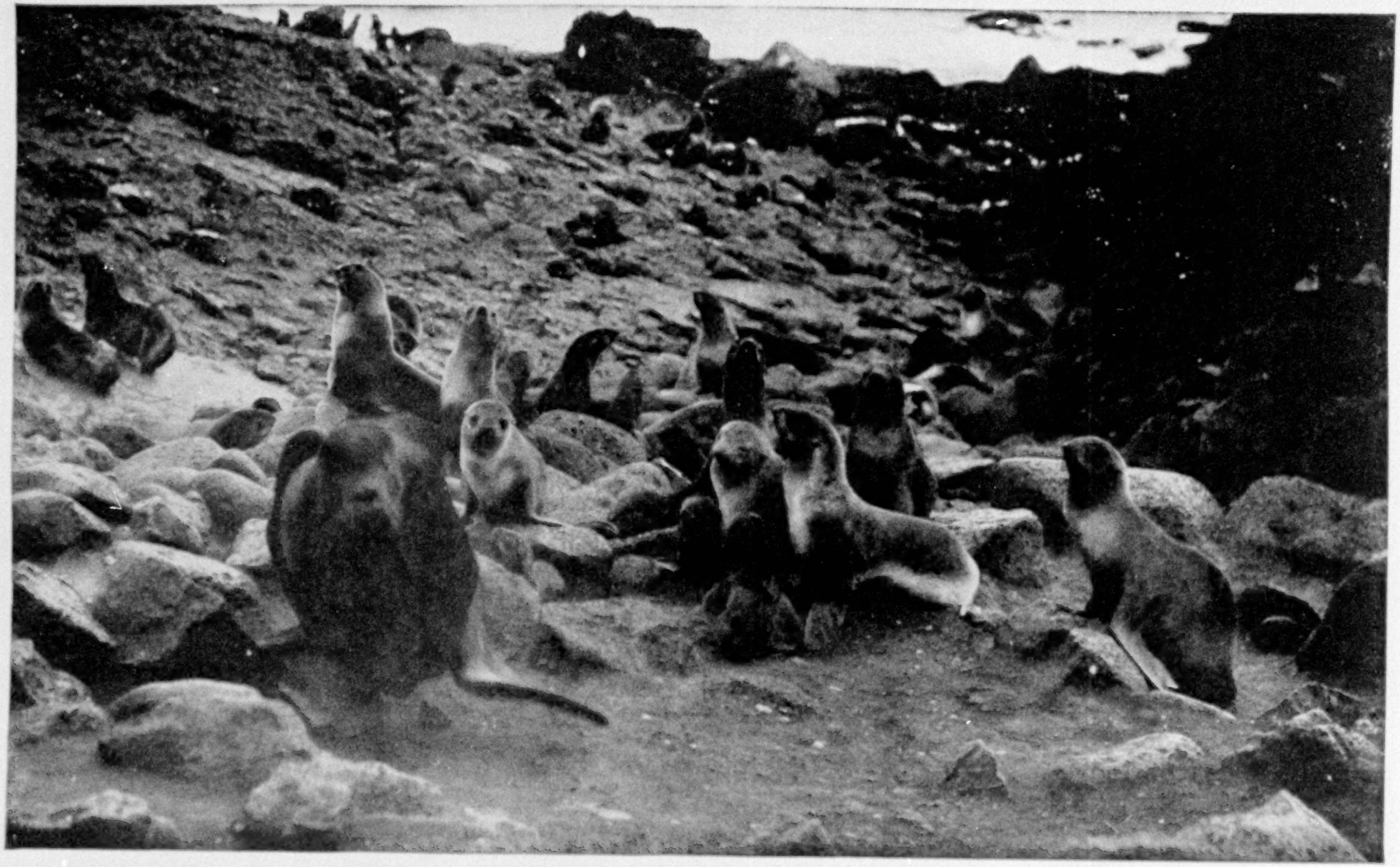


Photo from Hugh M. Smith, U. S. Bureau of Fisheries

NEAR VIEW OF A SMALL HAREM, SHOWING A BULL CHARGING THE PHOTOGRAPHER

It is indiscreet for a person to venture so close to the seals under such circumstances, for the bull is always on the alert to repel invaders, and his rush is rapid and irresistible. In this case the photographer was charged by the bull, and was lucky to get away with his heavy plate camera

killed and lost because they sank before the hunters could lay hold of them, while many that were wounded and escaped died later; (2) that for every adult female killed on the way to the islands in spring an unborn pup was sacrificed; (3) that for every female killed after the herd had reached the islands a pup on shore was left to die a lingering death by starvation, and a pup to be born the next season was likewise sacrificed.

RESULTS OF PARIS AWARD MOST DISASTROUS

The government was not slow to realize the damage done to the seal herd by pelagic sealing, and was led to assume jurisdiction over the entire American side of Bering Sea and to regard as poachers any persons found hunting seals therein. The seizure of vessels flying the United States and British flags followed, and there arose a controversy with Great Britain, which culminated in the reference of the case to an international tribunal of arbitration that met in Paris in 1893. The award of the arbitration court was against the United States on both of the main contentions, namely, that Bering Sea is a closed sea, and that the property right in the seal herd warranted the government in protecting the seals while on the high seas.

Since the award of the Paris tribunal the case of the fur-seal herd has gone from bad to worse. The United States government early showed its good faith by prohibiting its citizens from engaging in the lucrative industry of pelagic sealing; but the subjects of all other countries were permitted to do so, and it was the injection of a new factor, Japan, that contributed more than any other cause to the decimation of our seal herd.

The arbitration court appeared to recognize the necessity for affording some measure of relief to the sadly harassed seals, and accordingly it promulgated certain "regulations for the proper protection and preservation of the fur seals in or habitually resorting to Bering Sea;" but in the entire history of fishery regulation there is probably no other case that affords such a striking example of impotency and inefficiency.

We could have accepted with equanimity the major terms of the Paris award, but we might be justified in regarding the further proceedings as a colossal hoax if their effect had not been so fraught with disaster to the interests of the fur seals and the United States government. A distinguished authority on the fur-seal question has stated that "on the whole, it is difficult to see how a more comfortable and convenient set of regulations could have been prepared had the pelagic sealers themselves drawn them up. It is difficult to see how they could be made more destructive to the herd if that had been their deliberate intent."

Bearing in mind the avowed purpose of these regulations, we note with amazement that in 1894, the first year of their operation, more seals were killed at sea and greater damage was done to the herd than ever before; and during the three years following the opening of Bering Sea to the legalized ravages of the pelagic sealers the immediate loss to the Pribilof herd from this cause was not less than 500,000 seals, of which a large proportion were adult females, while the total land killing during the same period was only 80,000 surplus males!

THE GOVERNMENT'S FUR-SEAL PROBLEM AND POLICY

The fur-seal problem with which the United States government now has to deal presents several phases. The most important duty the responsible officials have to perform is to conserve and increase the seal herd. This involves continuous care, study, and observation; the determination of the actual condition and needs of the herd, and the application of the results of scientific and economic investigation to the welfare of the seals.

A scarcely less important duty, and one that is in no respect antagonistic to the first, is to provide a revenue and to utilize a highly useful resource at the time when that resource possesses the greatest market value. This involves the

SAND BEACH OF LUKANIN: ST. PAUL ISLAND

Lukanin, or Lukannon, Rookery was named after an early Russian seal hunter. The sand beach at one end of the rookery was once a favorite resort for very young bachelor seals, but this celebrated hauling ground is now entirely unoccupied and has been for a number of years

I met my mates in the morning (and oh, but I am old!),
Where roaring on the ledges the summer ground swell rolled,
I heard them lift the chorus that dropped the breakers' song—
The beaches of Lukannon—two million voices strong!

The song of pleasant stations beside the salt lagoons,
The song of blowing squadrons that shuffled down the dunes,
The song of midnight dances that charmed the sea to flame—
The beaches of Lukannon—before the sealers came!

I met my mates in the morning (I'll never meet them more!),
They came and went in legions that darkened all the shore,
And through the foam-flecked offing as far as voice could reach,
We hailed the landing parties and we sang them up the beach.

The beaches of Lukannon—the winter wheat so tall—
The dripping, crinkled lichens, and the sea fog drenching all!
The platforms of our playground, all shining smooth and worn!
The beaches of Lukannon—the home where we were born!

I meet my mates in the morning, a broken, scattered band,
Men shoot us in the water and club us on the land;
Men drive us to the salt house, like silly sheep and tame,
And still we sing Lukannon—before the sealers came.

Wheel down, wheel down to southward, oh, Gooverooska go!
And tell the deepsea viceroys the story of our woe;
Ere, empty as the shark's egg the winter flings ashore,
The beaches of Lukannon shall know their sons no more!

—*Rudyard Kipling in "The Jungle Book."*

This lot of young male seals have "hauled out" to sleep on an out-of-the-way beach, and have been surprised by the photographer. Some of them are still sleeping, but most of them are aroused and some are escaping hurriedly to the water. The young male seals are much more wary and difficult to approach than the cows, and are ready to rush into the sea at the sight of a man, and may even be stampeded by the scent of man carried on the wind for a quarter of a mile. The seals here showing uniformly dark fur are four or five years old, and have passed the age when their pelts are most valuable, while those with contrasty coats and light patches on breast and abdomen are in prime condition and are the only ones utilized by the government (see page 1145). Photo from Hugh M. Smith, U. S. Bureau of Fisheries.

Photo by Dr. Charles H. Townsend, New York Aquarium

A RARE VIEW OF A SLEEPING BACHELOR (SEE PAGES 1145 AND 1147)

This seal had just come from the water, and was sleeping so soundly that he was approached within a few feet. His fur, daubed with sand and dripping from the sea, could not be recognized as the same that enters into a beautiful seal-skin jacket

Photo from Hugh M. Smith, U. S. Bureau of Fisheries

NORTHWEST COAST INDIANS HUNTING FUR SEALS

In this primitive method of seal hunting the Indians in their canoes seek the seals, which, after gorging themselves with food, sleep at the surface during the process of digestion. While one man stealthily propels the canoe with noiseless strokes of his paddle, the other stands in the bow and holds ready a long-handled, two-headed spear with detachable barb fastened to a lanyard. The spear is hurled with deadly accuracy at close range, and the doomed seal is dragged into the boat by the lanyard and despatched with a club.

judicious killing of the male seals when they are two or three years old and the disposal of their pelts to the best advantage. A third duty is to ascertain what are the real needs of the helpless native inhabitants of the seal islands, and to give them the aid that is best suited for their mental, moral, and physical natures.

A point which has been overlooked or ignored in most recent criticism of the government's policy regarding the administration of the seal islands is that the interests of government and fur seals are necessarily interdependent. To maintain the physical condition of the herd at the highest point of perfection will insure the largest economic returns therefrom; to exploit the herd beyond its capacity will inevitably and quickly bring a diminution in financial proceeds.

Fortunately it is easily possible always to keep well within the limits of safety in utilizing the surplus male seals, and it is a well-known and significant fact that one of the periods of greatest damage to the seal herd from internal causes resulted from a suspension of killing operations on land, under the terms of a modus vivendi arranged between the United States and Great Britain pending the outcome of arbitration proceedings.

WELFARE OF HERD DEMANDS KILLING OF SURPLUS MALES

Recent criticism of the government's policy of taking the skins of seals in view of the depleted condition of the herd is based on deficient knowledge. The fur seal being a highly polygamous animal, and males and females being born in equal numbers, it follows that under the conditions that have prevailed and still continue the number of males produced is far in excess of the requirements of

Photo from Hugh M. Smith, U. S. Bureau of Fisheries

A GULLY IN ZAPADNI ROOKERY; ST. PAUL ISLAND

This used to be a favorite playground for the pups, and at times so many dead pups were found there as to give it the name of the "Zapadni death trap." Deaths early in the season were due largely to a parasitic worm which infests the sand and gets into the pups' intestines; but deaths later were caused by starvation, owing to the killing of the mother seals at sea. This and other death traps in the rookeries have been unoccupied in recent years owing to retraction of the herd, but in 1896 over 4,300 dead pups were counted on Zapadni alone.

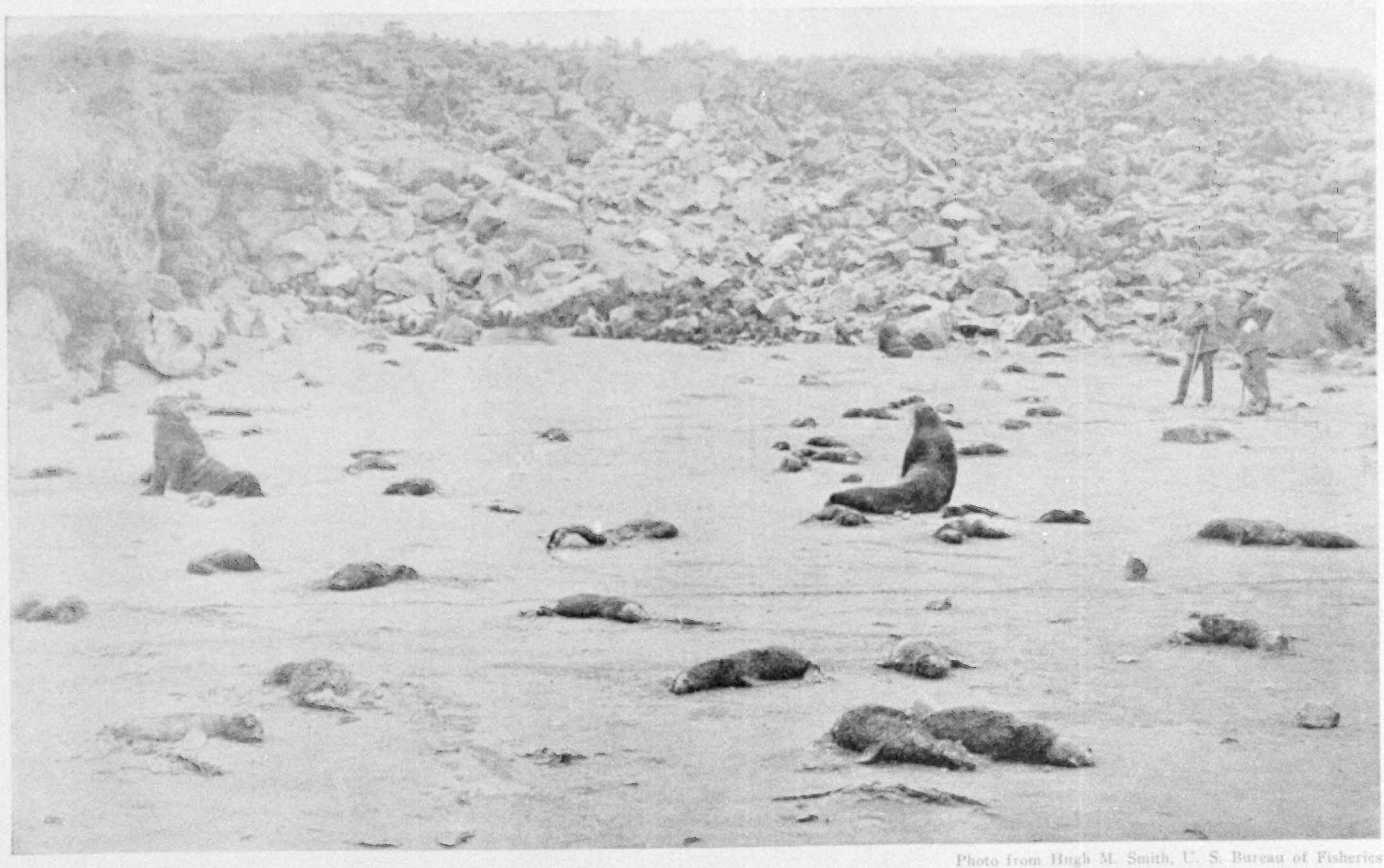


Photo from Hugh M. Smith, U. S. Bureau of Fisheries

DEAD PUPS ON A SECTION OF TOLSTOI ROOKERY: ST. PAUL ISLAND

This gruesome picture is unfortunately typical of various rookeries and numerous occasions. All the living seals have been driven off except two bulls which refused to leave their stations, and the bodies of upward of 100 dead pups are disclosed in this limited area. Some of the pups succumbed to the parasitic sand worm, but most of them died from slow starvation owing to the killing of their mothers by the pelagic sealers (see p. 1153).

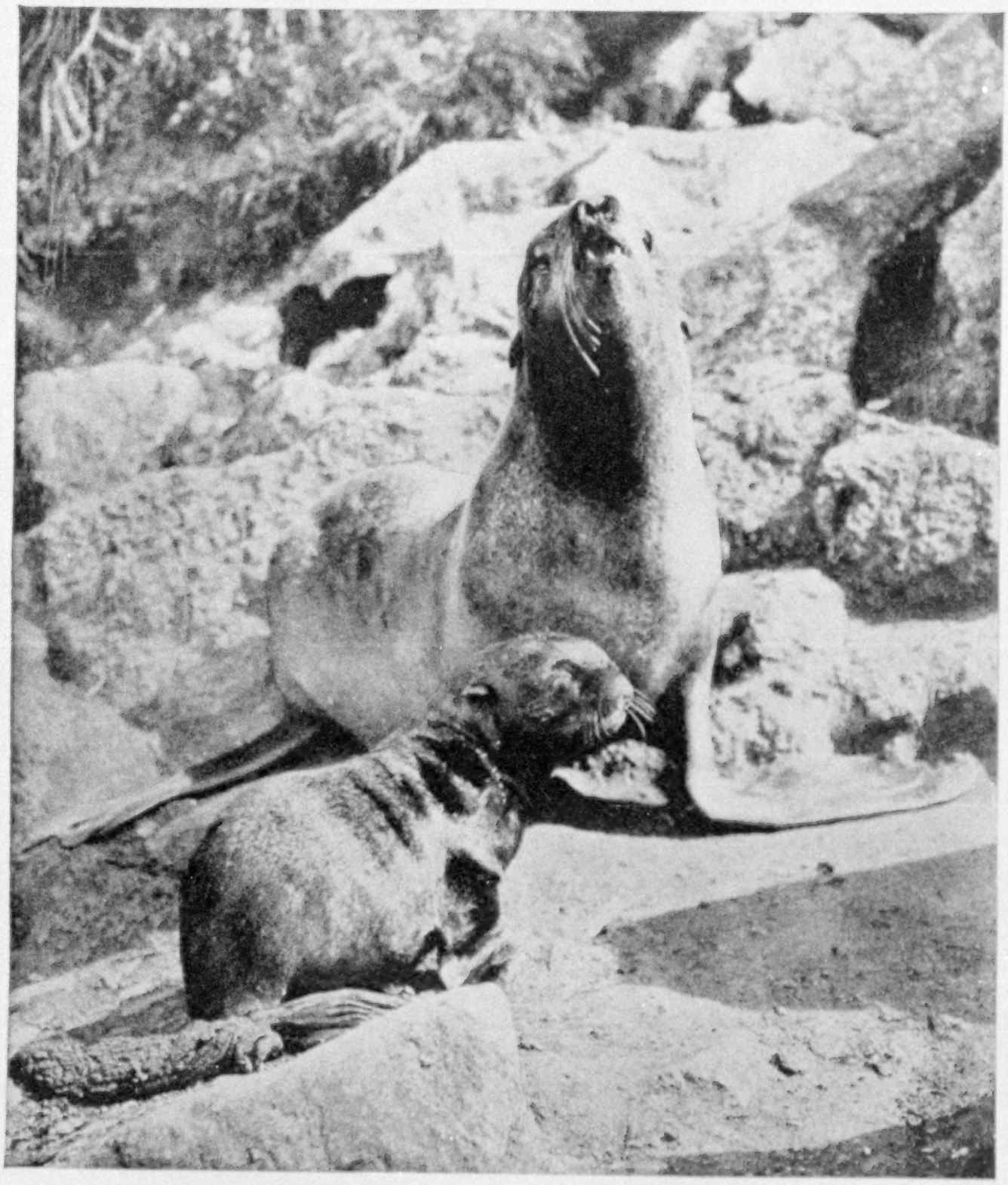


Photo by Walter I. Lembkey, U. S. Bureau of Fisheries

A MOTHER SEAL AND HER NEW-BORN PUP (SEE PAGE 1145)

After the second year each cow seal bears one pup annually for a period of probably ten years. The fur-seal pup from its birth until it leaves the islands in winter is nourished exclusively on milk. The killing of the mother seals while at sea, where they are obliged to go for food, therefore results in the death of their pups by slow starvation, and is a most serious injury to the herd from the loss of the potential productivity of the cows in subsequent years.

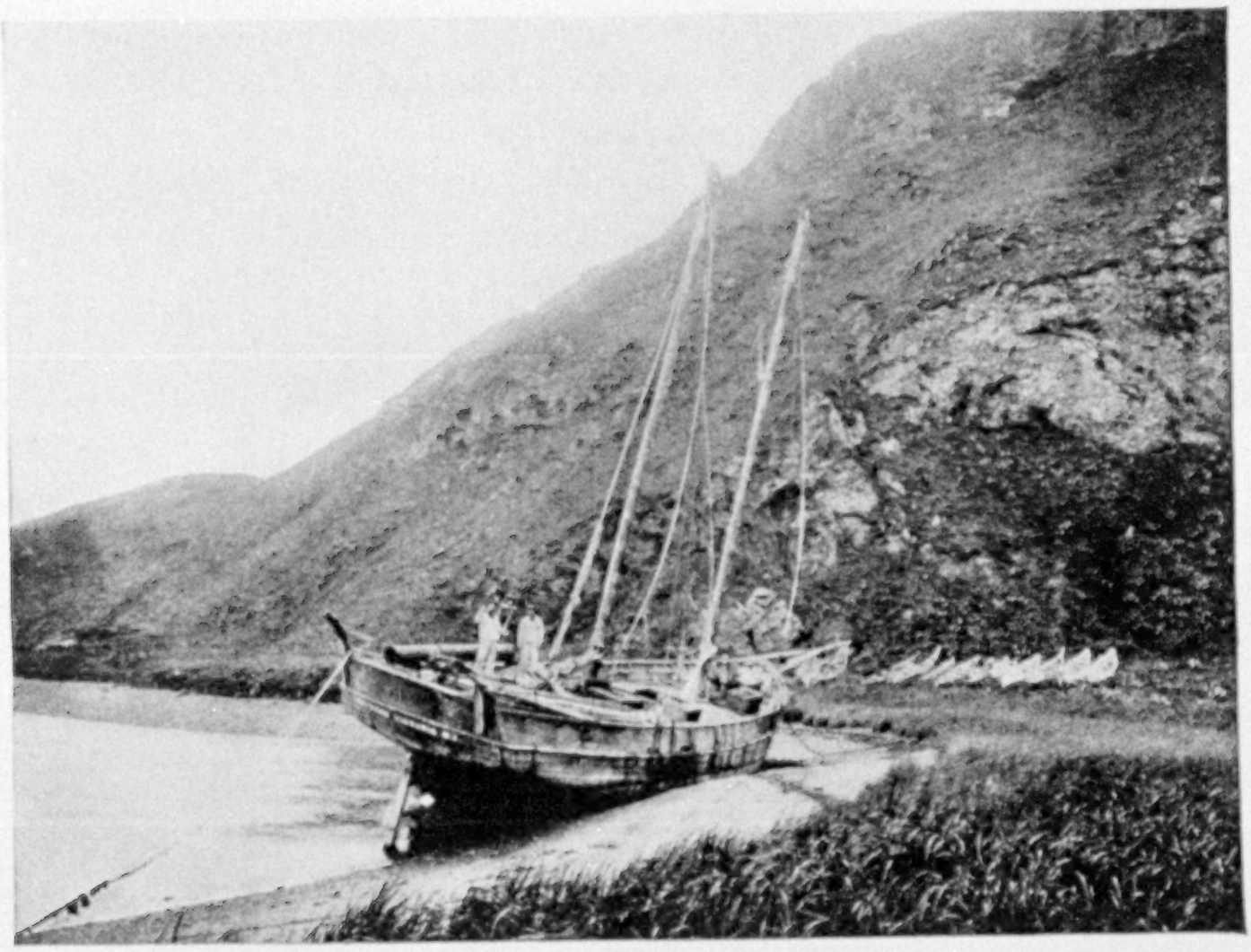


Photo from Hugh M. Smith, U. S. Bureau of Fisheries

A CAPTURED PELAGIC SEALING SCHOONER ON THE BEACH AT UNALASKA

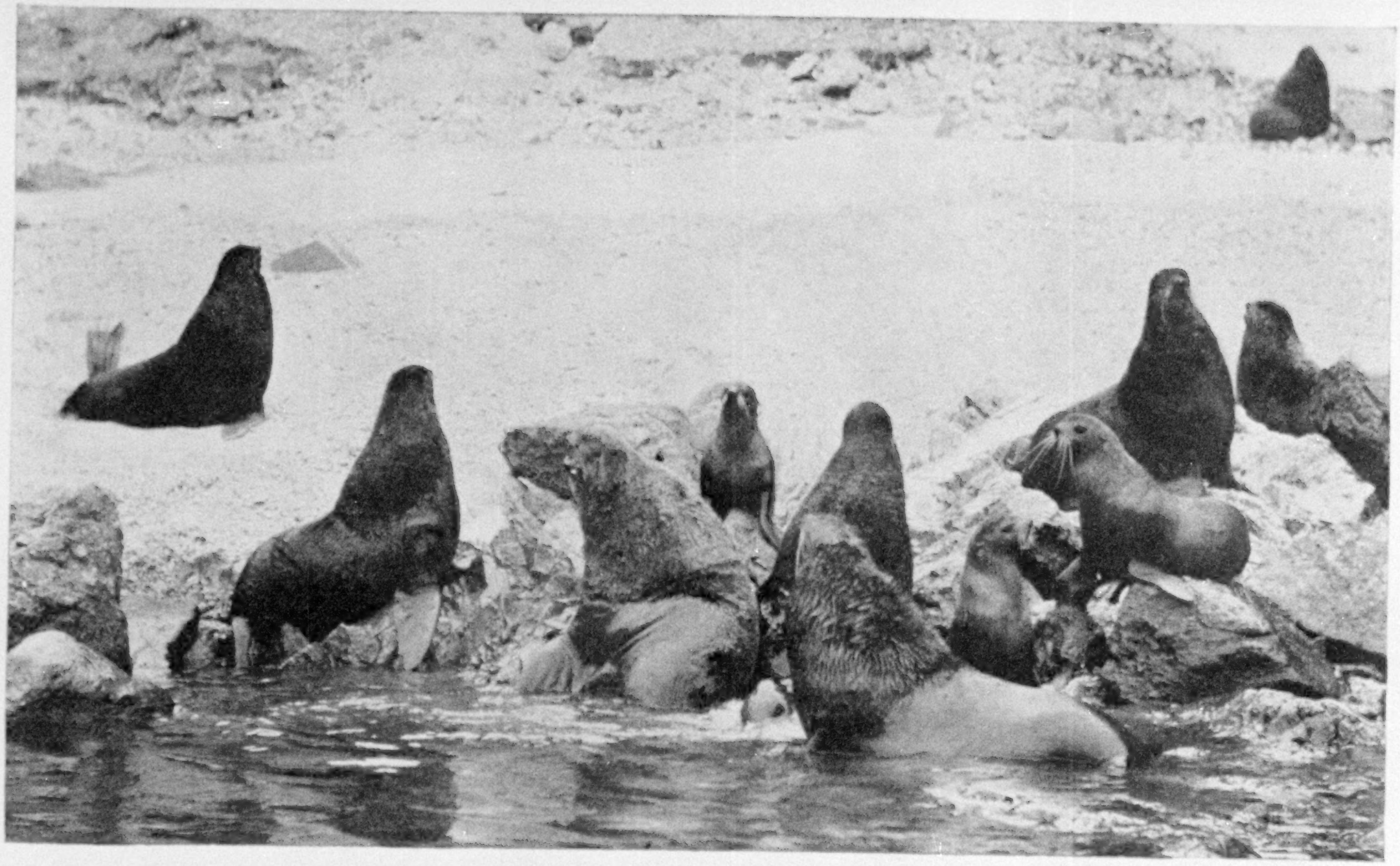
When sealing is conducted far from land the hunters make their headquarters on small schooners and distribute themselves in all directions in canoes or rowboats while seeking the seals. It has often happened in the past and occasionally happens now that the cupidity of the sealers leads them to take their vessels into forbidden territory, where they are likely to be apprehended by the vigilant revenue cutters patrolling the vicinity of the Pribilofs. This view is of a captured Canadian schooner in charge of a prize crew; her sealing canoes may be seen under the cliff.

nature for the perpetuation of the species.

The preservation and increase of the seal herd is entirely compatible with judicious sacrifice of a limited number of young male seals each year, and this is quite as true when the herd is depleted as when the rookeries are crowded to their full capacity. When the presence of a sufficient reserve is determined by responsible officers of the government, the utilization of the surplus males for their pelts and incidentally for native food is justified and demanded by common sense, and fulfills the utmost demands of both the spirit and the letter of genuine conservation.

If not a single male seal were to be killed on the islands or at sea during the next five years, not a single additional seal would be *produced* as a result of that course. If not a single male seal were to be killed on the islands or at sea during the next 20 years, not a single seal would be added to the herd that will not be added if the present policy of restricted killing of surplus males is continued.

The history of the Alaska seal herd clearly indicates that it is capable of



A RUSSIAN FUR-SEAL ROOKERY

The seal herd resorting to islands off the coast of Kamtchatka is in an even more depleted condition than the Pribilof herd, owing to the ravages and raids of American, Canadian, and Japanese pelagic sealers, combined with injudicious land killing. The Russian seals never mingle with the Alaskan seals, and have anatomical peculiarities by which the zoologist may recognize them, while the quality and color of their fur enable furriers to distinguish them from other species. Photo from Hugh M. Smith, U. S. Bureau of Fisheries.

complete and rapid recuperation. Notwithstanding that only a remnant of the once mighty fur-seal hosts now exists, the outlook for the preservation and restoration of the herd is more propitious than at any previous time (see p. 1149).

This optimistic view is based on the facts that the seals are now receiving what they never before had but always needed, namely, continuous scientific supervision on which the conduct of the commercial features of the business will depend; that the fixed policy of the government is to administer the affairs of the seal islands with due regard for the mutual interests of the seal herd and the public, and that the sole and now generally recognized cause of the present decline, namely, pelagic sealing, is by an international convention altogether eliminated for 15 years and possibly for all time.

THE ARBITRATION TREATIES*

By William Howard Taft

PRESIDENT OF THE UNITED STATES

I AM very glad to be present at the opening of this conference of the Society favoring an international arbitral court. I believe this to be an ideal which, when realized, will offer a practical solution for the difficulties now presented by universal armament.

Europe is an armed camp. Each nation feels that it cannot in justice to its people, or with safety to its integrity, avoid expending money enough on its army and navy to prevent its dissolution should international controversies arise that could not be solved otherwise than by war. Repeated attempts have been made to secure a lessening of armament; they have failed because each nation says to the other, "Well, you do it first." The consequence is that to any one charged with the responsibilities of government under present conditions, armament is a necessity.

I have been engaged for some time in preaching peace—and preaching it just as hard as I can; but I have got to recommend to Congress the appropriation of money enough to have an armament that shall meet existing conditions.

SHALL WE FORTIFY THE PANAMA CANAL?

For example, the question presents itself: Shall we fortify the Panama Canal? There are those who are so much interested in peace, and who believe in it so much as a sign, as a symbol, that they think the suggestion that the Panama Canal ought to be fortified is inconsistent in the mouth of one who advocates peace as strongly as I do. But it is one thing to look forward to an ideal, and it is another thing to meet present conditions. My own impression is that he who proceeds practically to a reform is much more likely to accomplish it than he who sacrifices everything to a name and to a fetish.

We are not seeking war by fortifying the Panama Canal; we are not going to fight anybody on account of fortifying the canal. But we built the canal as part of our coast line and to double the efficiency of our navy, and if we should now neutralize the canal, it would give the same facilities to our enemy in attacking our shores as we enjoy ourselves, which is to lose half the value of the canal as a war measure. Hence I am in favor of fortifying the Panama Canal, preventing its use by the enemy, and of using it ourselves in self-defense. In other words, we must use common sense in dealing with every problem. A position like this which recognizes present conditions is not inconsistent with pressing forward

* An address to the American Society for Judicial Settlement of International Disputes, Cincinnati, November 7, 1911, and specially revised by President Taft for publication in the National Geographic Magazine.

to change the conditions that render necessary such a policy.

IS WAR NECESSARY FOR THE DEVELOPMENT OF HUMANKIND?

Now there are those—and I am not disposed to do other than to reason with them—who say that war is absolutely necessary for the development of humankind, and they can point in history to certain wars without which the progress that was made might not have been. They can say, for instance, that we should still be related to England as a colony but for the War of Independence; that we might still have slavery but for the Civil War, by which we were enabled to excise the cancer of slavery. But there are other wars that we might have avoided had we proceeded as we are planning to proceed today.

War doubtless does develop the stronger virtues of men; anything that tends to make men sacrifice themselves does so. But I rather think that in hunting through the life of a nation and the life of a generation, we will find enough things to test character, to invite sacrifice, without our insisting upon having war in order to develop human nature.

I am glad to be here today, because it is only about a year ago that I had the honor of attending a banquet of this same Society, and of repeating at that banquet what I had ventured to say only casually some six months before, to wit: that I had noticed in a number of our treaties with foreign nations that there were excepted from the causes which were to be arbitrated those which involved national honor or vital interest; that I did not see any reason why we might not just as well arbitrate a question of national honor or vital interest as anything else. That observation was followed at the banquet of this Society a year ago by the statement that I hoped we might be able to make a treaty with some prominent nation in Europe by which we would agree to arbitrate every controversy that could arise between us, whether it involved national honor or vital interest or not.

That remark was taken up first by the ambassador from France, who sat next to me. When I sat down he said, "We will make such a treaty with you," and I replied, "I'm your man."

Then we waited awhile and Sir Edward Grey, on the floor of Parliament, in deploring the increase in naval appropriations, referred to my remarks and said that, speaking for his government, they were most anxious to enter into such a treaty. He was followed by Mr. Balfour, the leader of the Opposition, who concurred in his statement and urged the wisdom of such an agreement between us. There followed the necessary negotiations, which resulted in these treaties, one with Great Britain and one with France. They were submitted to the Senate. The majority of the Committee on Foreign Relations reported the treaties to the Senate with the recommendation that they be ratified with an amendment which struck out the third clause. I am coming to that a little later.

QUESTIONS OF NATIONAL HONOR

I only want now to take up the first proposition involved in these treaties, and that is the elimination from the exceptions in the old treaties of questions of national honor and vital interest. It struck me, as I am sure it must strike you when you read a treaty that says, "We will agree to arbitrate everything that arises between us except questions of national honor or vital interest," that you have omitted, from the things which you are to arbitrate, about everything that is likely to lead to war. At least, you have put into the treaty words which any nation that desires to avoid arbitration can fall back upon as including everything that they wish to include within that description.

So far, therefore, as facilitating peace and avoiding war are concerned, these treaties might just as well have been written in water, except that they express the general desire to arbitrate when it is easier to arbitrate than otherwise.

Now I am asked, "Would you arbitrate a question of national honor? Would you submit to arbitration your personal honor?" I have no hesitation in answering that exactly as it is put: I would much prefer to submit to a board of

arbitration, composed of intelligent jurists of an impartial mind, the question whether our national honor has been attacked, and if so, what the reparation of the injuring nation ought to be, than I would to go to war about it.

What would war settle? If we wiped our enemy off the map, it would settle the fact that we were the stronger nation, and if we were wiped off the map, it would settle the fact that they were—and that is all it would settle!

Napoleon said that the Lord was on the side of the stronger battalions. Of course, if we wiped the enemy off the map, we would at once claim that the Lord was with us, and that would be a satisfactory arrangement. But it is a little difficult to explain our relations to the Lord if we are wiped off the map.

That was exactly the principle of the *code duello*. If I claimed to be a gentleman and was insulted by a gentleman—of course, we all had to be gentlemen in those days in order that the code should work—if I were insulted by a man who called himself a gentleman, the *code duello* required that I should go out and make myself a target for him because he had insulted me. Of course, the reverse was true—that he had to make himself a target for me; and if I hit him, the arrangement seemed for the time to be satisfactory to me; but if he hit me—and being a larger mark, I think that would be more probable—it would take a good deal longer than the two months, or four months, of convalescence, for me to reason out the satisfactoriness of the arrangement by which my honor was satisfied by his shooting me.

Now at common law, if one man sued another on a promissory note or a bond, and the defendant came into court and was a little short of witnesses, and the issue raised was whether he had ever made the note; or, if he had made it, whether he had paid it, the defendant could demand wager of battle. Then the judge handed out, or had somebody hand out for him, two swords, and the defendant and the plaintiff went at each other; and if the defendant cut off the head, or the hand, or the arm, or in any way rendered helpless the plaintiff, that proved either that the defendant had never made the note; or, if he had made it, that he had paid it.

They discontinued that several hundred years ago; but I should like to have you take home with you the question, in what regard that method of settling the issues in a court of law differs from the method of settling issues now between the nations? If the analogy is not exact, I do not know what an analogy is. We ought to find some way to avoid resort to the ridiculous method we now have of settling international controversies.

Certainly when reference to the old way of settling an issue in court awakens our ridicule, it ought at the same time to awaken our shame that we have not, up to now, found some wiser method of settling international controversies which present precisely the same kind of issues.

THE TREATIES THAT MAKE WAR IMPOSSIBLE

Now the treaties are alike; they are so much alike that I can take one as an example of both.

Let me take the English treaty. It recites that we have not had war with England for nearly 100 years; that we do not intend to have war with England ever, and that we have made treaties of arbitration which have exceptions that we wish to eliminate, and that we propose to make a treaty that will render war impossible. We then proceed to agree, first, that we will submit, either to The Hague Tribunal or to some other tribunal to be agreed upon by the parties, all differences hereafter arising between the two nations which are justiciable; that is, as defined by the clause, which can be settled by the application of the rules of law or equity. Then the clause provides for a special agreement, to be initiated by the President and approved by the Senate, submitting to arbitration the question which has arisen.

The second clause provides—perhaps I ought to take the second and third clauses together—the second clause provides for the organization of what is called a joint high commission. That consists of three Englishmen and three Americans, unless they agree to select

other than what are called the nationals of the two parties. There is some question as to how these men are to be selected; there have been those who intimated a doubt as to whether it was wise to permit the selection to be left to the President. I think that is not a very important question. I am entirely willing to have the men confirmed by the Senate, or to have them selected by the Senate, if that be necessary. That, I think, can be easily changed or made so as to suit everybody. Whether it be by the President or by the President and the Senate, I have no doubt but that three suitable persons would be selected. Now this joint high commission is to perform, under the second clause, two functions. The first function is to take up every difference, whether it be justiciable or not, to investigate and to make recommendations for its solution without arbitration; in other words, it is a means of avoiding, not only war, but arbitration.

The Senate committee, or a majority of them, have found in that second and third clause rather a stirrer-up of war than a clause which avoids war. I confess myself unable to follow their reasoning. The clause provides that the commission shall first investigate and finally rcommend; shall give hearing and be an adviser to both nations; and it provides that if either nation require it, the final advice shall not be given for a year. I regard that as one of the most admirable clauses in the treaty, for the reason that it postpones the effect of the momentary passion of the people of either country, so that they have a chance to cool off; they have a year to think over the question whether they wish to precipitate their country into the sufferings of war. There is nothing that helps the solution of difficulties arising from anger so much as time.

I do not know but that I may be entering upon a confession when I put an illustration before you with the thought that some men in the audience perhaps have been through the same experience. Something happens at the office or the store to anger you, and you cannot get it out of your system. You go home and make yourself disagreeable to your wife, and you hear her whisper to the children, "Papa isn't feeling very well today; don't disturb him," and you are left solitary with nobody to interrupt or interfere and with nothing to prevent your contemplation of yourself. After awhile, as the darkness of the evening comes on, you realize what an ineffable ass you are making of yourself, and how you are treating those who had nothing to do with the original cause as if they were responsible for it.

Now what is true of an individual is true of a nation. It is not so true as I would like to have it, because the conscience of an individual is usually better and higher than that of a nation; but the progress of Christian civilization is the elimination of the difference between the conscience of the individual and the conscience of the nation. We have the right to reason that time, which helps so much in subduing the unreasoning quality of anger and momentary passion in individuals, will have the same effect upon nations; and in many respects I think that clause is one of the best things in the treaty, and that if we can hold the two nations off for a year they will never come to blows at all. But the nub of the trouble which the Senate committee has is in the function to be performed by this joint high commission when there is a difference of opinion as to whether the controversy arising is a justiciable one which must be arbitrated under the treaty. That commission in such case has the right to decide whether the controversy comes within the definition or not; and if it is decided that they shall go on to arbitrate, the treaty recites that they shall go on to arbitrate as provided in the first clause.

Now under the first clause the Senate must concur in a special agreement defining the question to be arbitrated, and there probably—Mr. Knox thinks certainly—the Senate has the power to withhold its consent even after the joint high commission has acted. The Executive is bound; the Senate may still refuse. But if a commission like this unanimously, or by a vote of five to one, as the treaty requires, decides the question to be arbitrable, the pressure upon

the Senate would be such that probably it would not withhold its consent to an agreement.

Personally I would have made the treaty—if I had the making of it and the ratification, too—I would have made the treaty so that the board of arbitration should have had the jurisdiction to decide, upon the application of either party, whether the question arising came within the treaty. I would leave the question to it exactly as I would leave the question to a court of superior jurisdiction. But evidently we have not quite got to that stage, though this is a step in that direction. I believe the arbitral court to be the solution of the difficulty; and when I say "arbitral court," I mean a court whose jurisdiction and power are established by joint agreement of all nations—a court into which one nation may summon another for a hearing upon a complaint and for a judgment, and may rely upon the judgment being carried out through the public opinion of the nations, or by an auxiliary force, if necessary. When we have such an arbitral court, then disarmament will follow.

Now then, if we are going to take a step in that direction—if we are going to take up arbitration between nations *seriously*, if we hope first to make such treaties of arbitration with all the world, and later see the world of nations make such treaties with each other—then, my friends, in order to make a real step forward we ought to make an arbitration treaty that means something, and we ought to make it "for keeps." We ought to make it like the medicine that the Indian desired—something that bites when it goes down the throat—because the Indian does not believe that otherwise the cure will be effective.

ARBITRATION CANNOT RESULT IN VICTORY FOR BOTH PARTIES

Arbitration cannot result in victory for both parties; somebody has got to be beaten. We cannot play "Heads I win, tails you lose"; we have got to have the people accept the fact that sometimes we may be beaten. We ought not to arrange something with a string to it, so that when we think we are going to lose we can back out of arbitration and open up the possibility of war. We ought to put ourselves in such a situation that sometimes it will hurt us; we ought to subscribe to and carry out the treaty and stand to its terms. If we do not, then we are not making any progress. Therefore, while I appreciate the sensitiveness of the Senate with respect to this, and while I regard that feeling with respectful consideration, I think, nevertheless, that it is mistaken. I believe that we can well afford to go ahead and occasionally lose an arbitration in the general cause of the peace of the world.

We are a just nation; we are not likely to get into difficulties without just cause. But sometimes we may, and if we do we ought to be willing to stand up and take the consequences or not go into arbitration at all. It is all right to advocate peace and arbitration from the platform, and it is all right to have peace societies and conventions pass resolutions, and all that sort of thing; but unless we are willing to put ourselves in a place where we may be prejudiced sometimes by an arbitration, then the arbitration we agree to is not one of those real steps forward in the progress of civilization that we ought to urge.

I feel very deeply about the ratification of these treaties. The European countries have gone into the matter wholeheartedly. The reason is that when the question was agitated in England, in France, and even in Germany, it was the common people that pressed it to conclusion; they were the ones that rose and urged that the treaties be made and carried through. And why? The answer is significant; it is most pregnant: because they realized that when they go to war it is the plain common people that have to "pay the piper"; it is the plain common people that are food for powder. There are only a few leaders that wear the feathers and gold lace; it is the plain common people, their mothers, their sisters, and their daughters, that have to go through agonies of spirit waiting to hear from the battlefield. Hence it is that it is the cause of the people the world around that we are advocating; it is the cause of the people the world around that by pressing these treaties for ratification we are upholding.

XUM

WE SHOULD TAKE THE LEAD

Now are we going to say that because of narrowness in our Constitution we cannot enter into a treaty like this and lead the world? We are a people of 90 millions between oceans; we have the greatest resources of any country in the world, and if we had a prolonged war we have resources that would enable us to meet any country successfully. We are not afraid of any country, and we are not progressing in the direction of peace because we are afraid. Therefore we occupy a position of advantage in dealing with a question like this such that nobody can charge us with cowardice in seeking other means than that of war in settling controversies. We have no entangling alliances; we are isolated by the oceans, which in event of war would give us an advantage which all the nations of the world realize; and all the nations of the world, therefore, expect us to help them in that difficult situation in which they find themselves, where they are an armed camp and have to watch each other as if each were constant enemies.

Now are we, by rejecting these treaties in the Senate, going to say to the world: "Oh, yes; we have the deepest sympathy with you. We hope you will come out all right; we hope that peace will prevail. But, you see, we have got a provision in our Constitution that requires us to stop and look on. We can cheer you with encouraging words, but we cannot join you in the work!"

Norway and Sweden have made a treaty in which they agree to arbitrate certain classes of questions, and they say, "We will submit to the board of arbitration the question whether any issue which does arise comes within the class described in the treaty." If Norway and Sweden can do that, why cannot we?

That Constitution of which we are so proud, that Constitution which is the greatest fundamental compact of government ever struck from the brain of man, has always shown itself equal to any emergency that has heretofore arisen, with its simple, elastic provisions, which enable it to move on with the nation's progress, which open themselves to embrace every improvement that is needed for the progress of Christian civilization and the progress of our government. Are we going to give that Constitution such narrow construction as to take a retrograde step and to become merely an observer of the world's progress toward universal peace, or are we going to lead? Well, I think there is only one answer to that question. I sincerely hope that the Senate will respect that answer. I believe that answer ought to come from the body of the people. I believe that they want these treaties ratified, and I am very sure that when they are ratified they will be such a substantial step forward that we will all rejoice in their accomplishment. I do not regard them as important in keeping us out of a war with England or with France; we are never going to war with England or with France. They are useful by way of example to the whole world that we are willing to put ourselves in that situation with respect to those countries, and that those countries are willing to put themselves in that situation with respect to us.

The moment the treaties are ratified there will be other nations only too glad to make the same treaties with us, and when we have made treaties with all the nations of this character we must necessarily and reasonably expect that they will begin to make such treaties with each other; and when that is done we have reached the stage of an arbitral court.

OUR RELATIONS WITH SANTO DOMINGO

As I have said, these are useful treatics by way of example. But I should like to call to your attention and to the attention of this Society some special instances in treaties that are now pending in the Senate, bringing about a hope of peace where peace is not.

We had a treaty with Santo Domingo. Santo Domingo was one of those republics, so called, in the West Indies, where the professional business of a revolutionist was much more lucrative than that of lawyer or doctor, or any of the learned professions; and the point of attack was always the revenue office, the customs

office. There was a good deal of trouble about foreign debts. Finally, I don't know exactly how, we did get into such a relation with Santo Domingo, subsequently confirmed by treaty, that we appointed revenue officers to collect the revenue, under an agreement to deposit 45 per cent in New York to meet the foreign debt, which had been scaled down properly, and to pay 55 per cent of the revenue to Santo Domingo. That has been in operation for five years. Meanwhile they have not had any revolution there at all, and the 55 per cent of the present revenue far exceeds the whole revenue they collected when they were not paying anything on the debt at all, and the debt under the application of this 45 per cent is now nearly wiped out. Now, how explain this? Why, the professional revolutionist learned that if he sought the only object of a revolution, to wit, the custom house, where he might collect the taxes, Uncle Sam would interfere. We did not have to send any naval force or any army there. The revolutionist simply had to know that Uncle Sam would be there if he interfered, and they have gone on now and are becoming, I hope, a prosperous republic.

THE REVOLUTIONIST WILL GO OUT OF BUSINESS

The center of most wars in this hemispheres is in the five republics of Central America, Honduras, Nicaragua, Guatemala, Costa Rica, and San Salvador. In Honduras they have had 7 revolutions in 15 years, and now they are a little tired.

Honduras reaches from one ocean to the other, and whenever they have a fight in any one of the republics they seek a battle-ground in the territory of Honduras; and so she maintains an army and spends I don't know how much a year on it. But just now she hasn't got any money to maintain an army—she hasn't any credit—and, having learned of the successful operation of the system we established in Santo Domingo, she has asked us to help her. Accordingly we have made a treaty with her by which she is authorized to make a contract of loan. She has a 26-million debt, which, with compound interest that has not been paid, amounts to 126 million dollars. Arrangements with her foreign creditors reduce the whole debt, under certain conditions, to 4½ million dollars, and she wishes to borrow 10 million dollars in order to pay off this debt and, in addition, make certain improvements that are very necessary to the prosperity of the country. She has succeeded in making that contract in New York with an American banking firm. The treaty provides that we shall advise her as to whether the contract is a good one, and that we will join with the fiscal agent in recommending the collectors of the revenue, which is pledged as a security for the payment of the loan of 10 millions. Then there is a provision in the treaty that the United States reserves to itself the right to exercise such direction as may seem wise over the revenue agents thus appointed. There is not any obligation on our part to go in there if we do not want to; but the very fact that we have the right to go there is enough to eliminate the profession of the revolutionist from Honduras, because there is no profit in the business unless they can get at the revenues.

Now the Senate objects—or some of the Senate object—and they have published this treaty for the consideration of the people. A similar treaty, under similar circumstances, has been made with Nicaragua, and I say those treaties ought to be confirmed. It is said that the Monroe Doctrine does not require us to see to the collection of loans; but that is not the question. Of course we know that the Monroe Doctrine was directed against an invasion by the Holy Alliance of the republican governments which had been established in the countries that had made themselves independent of Spain. But the condition that confronts us today is this: we live in a hemisphere with 21 different republics. All are close neighbors of ours with whom we trade. We are a great, rich nation, able to do a great many things, able to help others in the community of nations; and there rests upon us as a nation just as much of an obligation to help in a community of nations like that as there rests upon a great, fortunate, wealthy man in a small com-

munity of individuals the duty to help the unfortunate among them. It is not going to cost us anything; it will probably help our trade; but I am not advocating either of those reasons as the basis for our action. The Lord did not give us the advantages we have without charging us with the responsibility of using them for the benefit of the world.

Now as a means of preventing wars—frequent wars—these two treaties, small matters as they are, are more important than the other treaties that I have been discussing, though of course in their world importance and throughout a long period of years the latter are of vastly greater interest. But for the immediate settlement of war these two treaties are more direct than the treaties with France and with England.

THE MONROE DOCTRINE

Just here I am reminded that certain objections which I have not considered are advanced against the greater treaties. One is the Monroe Doctrine. The answer is that that doctrine does not come within the description of a justiciable matter. Sir Edward Grey said so on the floor of Parliament, and John Bassett Moore, an eminent authority on international law, has said the same thing.

Again, it is urged that an attempt may be made to arbitrate a question of immigration, and that some undesirable race might thus be forced upon us. Well, it is a first principle of international law that each country shall decide for itself what aliens shall come within its borders. Congress could exclude, if it chose—I give the instance only to show the arbitrary character of the power—all bald-headed immigrants, or all red-headed immigrants. Therefore, unless we bind ourselves by treaty, there is no possible way of forcing the reference of such a question to arbitration.

So it is with respect to the tariff. We have a right to exclude anything from coming into the country, or to impose any conditions upon its coming in; therefore they could not force us to arbitrate the question of the tariff. Other questions might be mentioned the reference of which to arbitration might embarrass us. Personally I am willing to be embarrassed. I think we ought to come to a point where we will not take positions that cannot be sustained under the rules of law and equity; but I realize that there is a strong feeling the other way, and we have not gone to that extent in these treaties. We are making progress by them, and if we ratify them we will have taken a long step forward; and, having taken that step, then we can look about to see what step we can take next in order to make surer the coming of that arbitral court for which this Society is founded, and in the prosecution of which object I think all good men ought to help.

Another question is just proposed by a gentlemen from a Southern State, namely, the danger of submitting to arbitration the question of the payment of certain bonds that have been repudiated. Well, the language of the treaty is, "In all cases hereafter arising," which excludes these bonds. Therefore, if anybody is sensitive on that subject, he has no need to fear this treaty.

NATIONAL GEOGRAPHIC SOCIETY

The Annual Banquet of the National Geographic Society will be held on Friday evening, January 26, at the New Willard Hotel, Washington, D. C. It is expected that it will be the most notable in the history of the organization. Members desiring to attend can secure full information by applying at the office of the Society.

January 5.—Mr. Rustom Rustomjee, a distinguished native scholar of India now visiting America, will address the National Geographic Society on "The Parsees." The lecture, "A Woman's Climbs in the High Alps," by Miss Dora Keen, has been postponed to February or March.

January 12, 4.00 p. m.—The Annual Meeting of the National Geographic Society will be held at Hubbard Memorial Hall.

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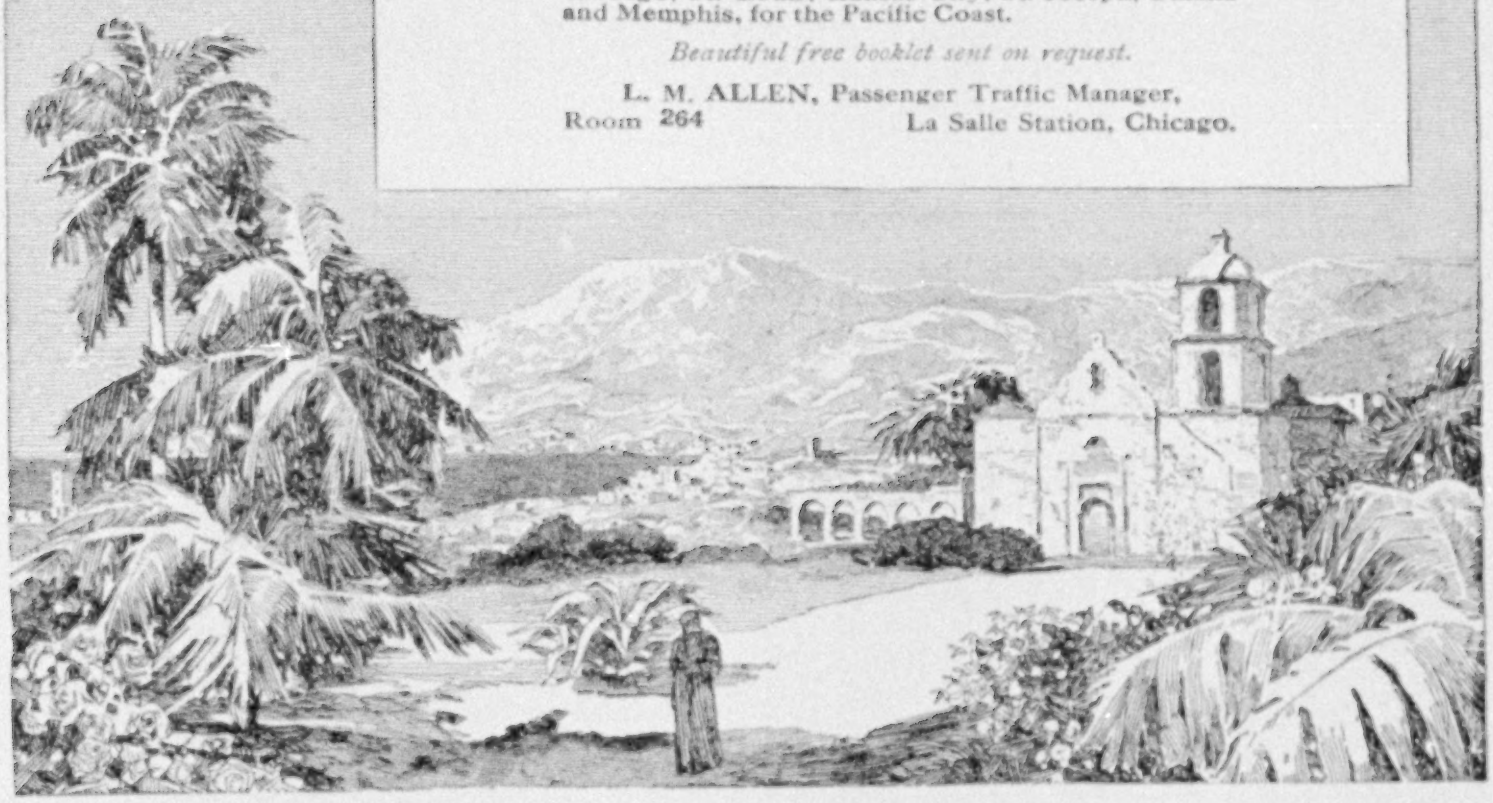

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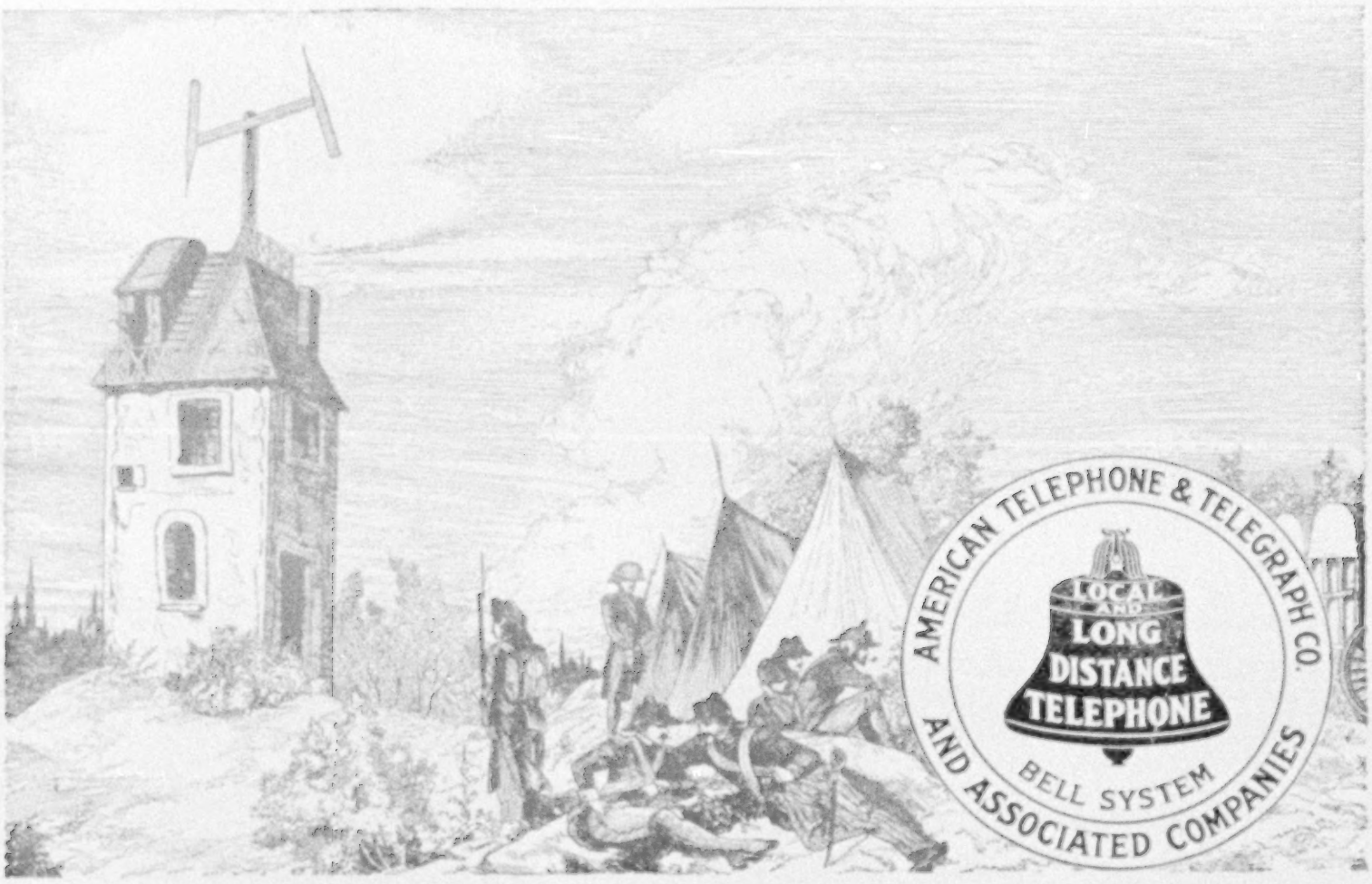

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This device was invented in 1793 by Claude Chappe. It was a semaphore. The letters and words were indicated by the position of the wooden arms; and the messages were received and relayed at the next tower, perhaps a dozen miles away.

Compared to the Bell Telephone system of to-day the visual telegraph system of Napoleon's time seems a crude makeshift. It could not be used at night nor in thick weather. It was expensive in construction and operation, considering that it was maintained solely for military purposes.

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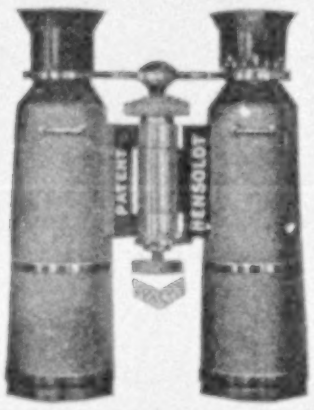

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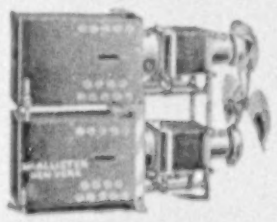

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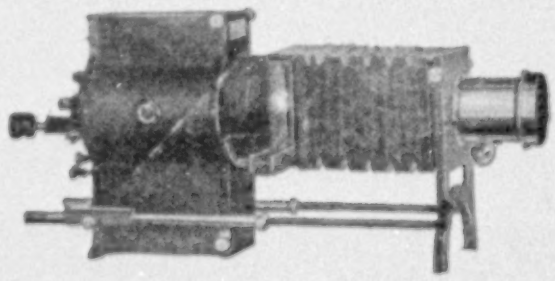

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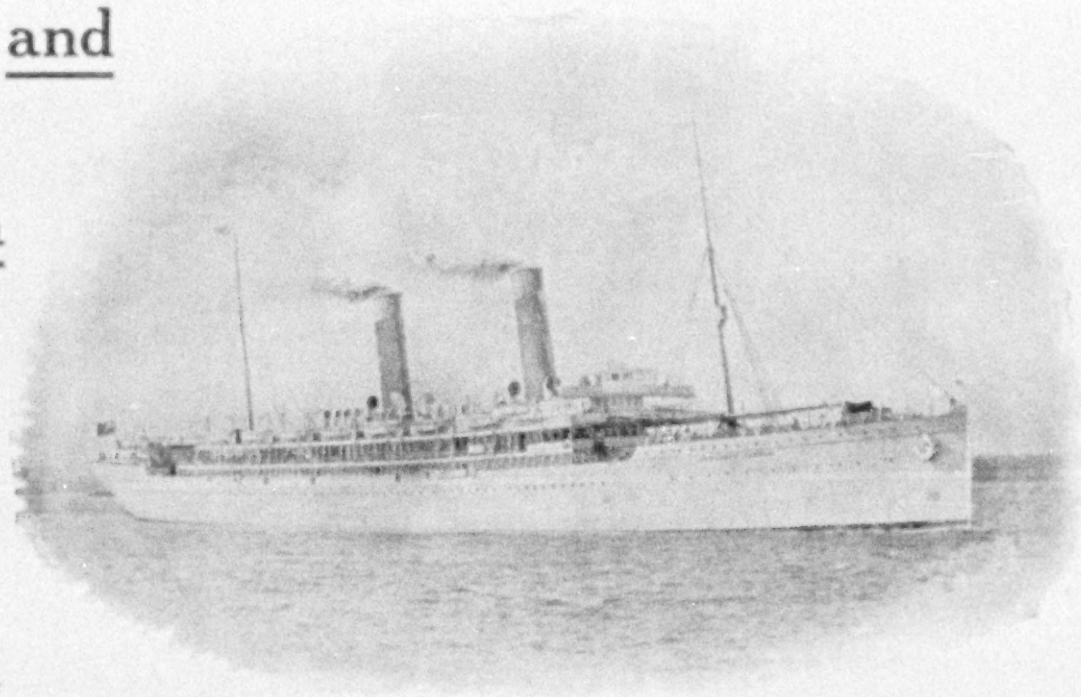

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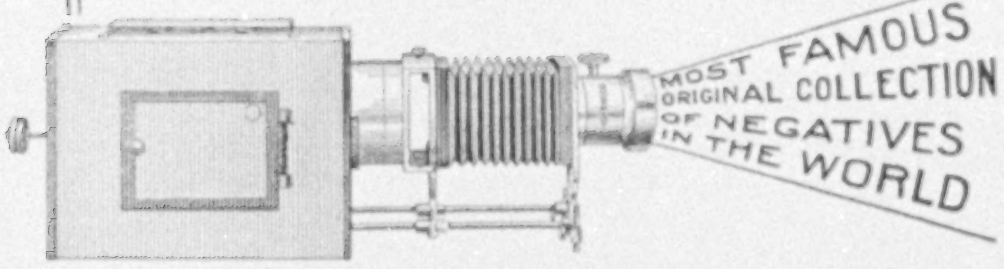

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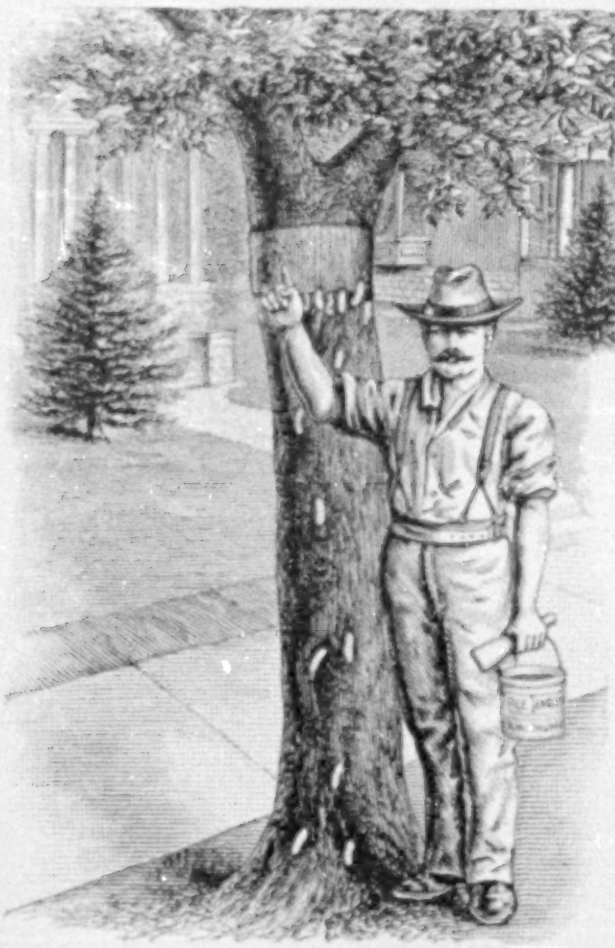

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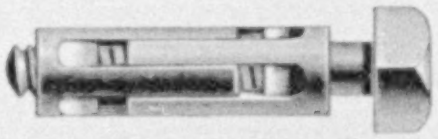

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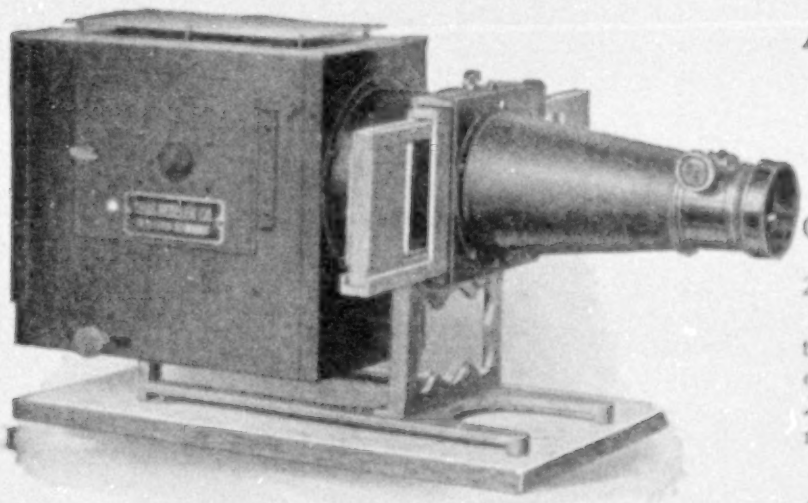

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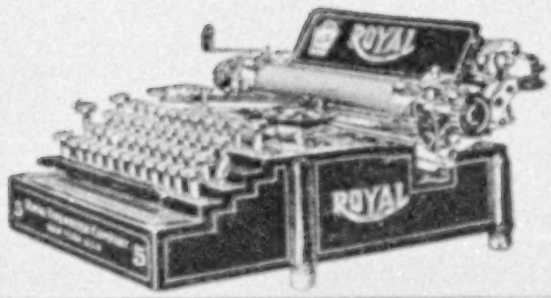

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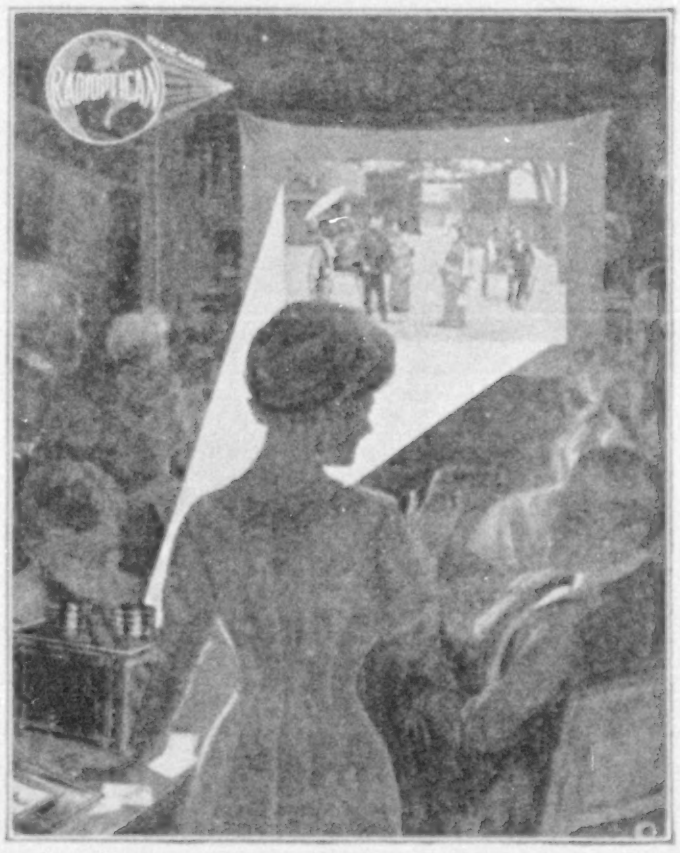

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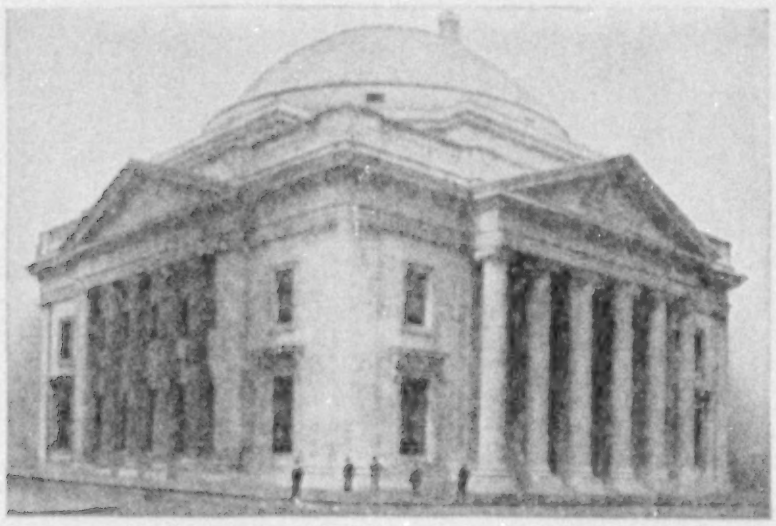

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